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German New Towns and some lessons for Iranian New Towns

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Abstract

This Essay considers the motives and the formation of European New Towns, in particular German Ones. For this reason it studies basically the development of German New Towns, further defines the German classification of this urban term. This essay suggests additionally for this sense a kind of classification in Germany - concerning to periodical as well as formal progress of German New Towns. All suggested classes are specifically and individually recognized and introduced, for each one is also given specific examples. Each case is furthermore introduced and its motive of formation and development are considered as well, e.g. cities like Ludwigshafen, Hellerau, Wolfsburg, Wulfen. Regarding to the development of German New towns and up to the given facts in the essay, the current and the expected situation of German New Towns are finally considered, also the sense of German experiences for Iranian New Towns, and its possible significance for them.

Introduction

Urban planning in Iran was the continuance of its past until the mid-period of Qajar Dynasty (the beginning of the 19th century in the beginning of Nasseris reform). In other words the reform of Urban planning in Iran was an understandable continuation of ancient Iran from the Mede to Sassanid in Firouzabad, Fars. After the Arab invasion in the seventh century the development of the Persian city went on with the same arrangement under influences of Islam as Persian-Islamic city, so that the traditional concepts, like “Kohan Dej” and “Sharestan”, remained but the terms changed to “Arg” and “Shar”. The terms changed but the function was almost the same - except for the social hierarchy, which was now excluded. The principles stayed

constant in order to protect the continuation of the historic urban concepts of Iran. Possibly the first considerable additions and alterations arose¹ within the Persian urban context - following a western pattern and breaking down the traditional forms - in the time of Nasser-ad-Din Shah and through the influence of Parisian city wall²: a Concept, which was for then Iran modern, but for then Europe not acceptable (especially regarding its defence function, which was not any more the case). This additions and alterations showed itself in the First Pahlavi period in the same pattern, but this time in particular in the transport network and the organization of districts. The Second World War and its consequences accelerated the speed of changes in the most of Iranian cities and above Tehran. Consequently the traditional development of Persian urban contexts came into conflict with its historic background for a while. After Islamic Revolution and with beginning of the Iran-Iraq war (1980) tendencies were expelled to arouse the traditional forms in the architecture and urban planning consequently also the formation of New Towns. Analysing the experience of other countries especially European countries is insofar reasonable, since their situation and their experience in the 19th and 20th centuries with the same topic "New Towns" come to the fore in developing countries like Iran nowadays. Above all the positive and negative results viz. the miscarriages as well as the achievements of the past experiences, which can be definitely valuated better after a long-term existence, are in this case more reasonable as many theoretician and scholars have concerned the development of these Towns. The results can give a guideline for all developing countries, which have the topic "New town" as a top theme. This essay is an attempt to make an analytical Introduction to the German New Towns in 19th and 20th centuries in order to make the mentioned exemplarily guideline for the future ones in other developing countries like Iran. By this comparison it is of course important not to forget, that the meaning and the function of New Towns are in the all urban contexts the same, but they are impressively under influence of their special social, economical, cultural and geographical backgrounds, a factor that also might not be disregarded or evaded by any conclusion viz. generalization.

The history of German New Towns

The German New Towns in 19th and 20th centuries were like as other European cases, above all English and French ones, directly and indirectly the result of Industrial Revolution and it's consequences. The qualitative and quantitative changes in the structure of Production from traditional into industrial, influenced the cities in both their meaning and their arrangement.

Strong waves of Immigration from villages and towns to cities - mainly caused by the employment opportunities in these new attractive centres - made the traditional structure of the cities ineffective and partly interrupted their function.

Traditional Structure of European City had still it's Mediaeval, Renaissance or Baroque character, but it was quantitatively insufficient for such a population. This cities provided also qualitatively just a low level standards of life, which were not anymore socially acceptable especially because of hygiene concerns. Some Authors like Émile Zola (*Germinal*, 1885) or some painters like Vincent van Gogh (*The Potato Eaters*, 1885) reveal a part of miserable life of worker class in this period in their works. This condition made also the theoretician like Friedrich Engels (*The Condition of the Working Class in England*, 1845) and Karl Marx (*Capital*, 1867, 1885 and 1894) to criticize this condition. The process of practical and ideological changes during this period developed the idea of creating New Towns, which should have possessed also high-quality standards of life. This idea went also back to the old Principe of "ideal city". This form of New Towns - as a result of Industrial Revolution - was originated in England as well as the Industrial Revolution itself (1785)³, in short, thereupon in France and Germany. Therefore is Germany also regarded as one of forerunner countries in the creation of New Towns since the 19th century, even if German New Towns might never achieved particularly in their development the same position similar to England - in respects of quantity, function and importance⁴. In England was the creation of New

Towns just not because of other main focuses more successful than Germany, but also one of the most important reasons was war. In Germany the country and many cities were destroyed through different wars. Great Britain was an island and this geostrategic advantage protected effectively its cities until 19th century and even in the both World Wars in 20th against artillery and land force of its enemies unlike Germany, which was assailable in Central Europe and the damages of international and own wars⁵ were extreme. That was one of important reasons, why in Germany the topic of Rehabilitation of existed destroyed cities (Fig 1) came more to the fore than creation of New Towns, in despite of Great Britain, which had more chances to focus on New Towns. In addition Germany lost the both World War and had to pay hard for it, not only social, cultural, but also financial. Paying monetary damages to the Allies didn't made sense the creation of New Towns, in addition it was not anymore economical affordable (Fig 2).

The Post-war movement of urban revitalisation especially in 50th and 60th years formed also few New Towns with a lot of Settlements, but this movement slowed down, as demographic and social changes had a great impact of the necessity of such new housing development, insofar that there was no strong need for those.

After German Unity (1990) viz. the unification of the two West and East Germanys were the mostly urban revitalisation focused on revitalisation and renovation the battered cities of DDR, hence there was also not public interests in order to creation the New Towns. In the meantime were also constructed huge Settlements, but none of them has the meaning and the function of a New town. The Settlements are frequently confused with New towns, therefore it is very important to define the meaning of a New Town. Just as well the meaning of the city is itself a conventional meaning, but there is a common definition: just those Complexes are known as New Towns, which have these characters:

- a. municipal Independence⁶
- b. economic, social and cultural central function in its neighbourhood
- c. technical and municipal chareacter
- d. rural differentiated quality and quantity of Population and insistence on various job offers⁷.

Regarding to Lewis Mumford one of the most important character of New Towns is are the basic economical independence of the Complex. It means that the main part of the employment opportunities must be concentrated in the Town or its suburbs and not in the neighbourhood of other cities, which is the case in the Settlements close to Frankfurt, Berlin e.g. Effenbach or Haselhorst. They are just Settlements and have not the Identity of a Town.

The suggested typology for the German New Towns⁸

Urban Planning - like as Architecture - has experienced different periods in Central Europe amongst others also in Germany, according to the theoretician there is to verify also different typologies and available styles, however regarding to less number of German New Towns it is easier to limit a model for them. A suggested typology of German New Towns on the basis of their origin as well as their development can be defined the following four types:

1. New Towns in 19th century, as a result of production changes
2. The first New towns in the 20th century until the First World War, Garden Cities
3. The New Towns between 1st and 2nd World Wars, ideal political New Towns
4. Post War New Towns, New Town or a Settlement

1. New Towns in 19th century, as a result of production changes: At the beginning of 19th century grow the population of Germany three times, it means that the population during 100 years grow up from 25 to 85 millions. The high demand for housing and for other municipal facilities, increased the speed of municipal expansion and consequently many Settlements originated⁹.

The first of these New Towns are Bremerhaven (1827) (Fig 3), Ludwigshafen (1843) and Wilhelmshafen (1853). These three cities were all Harbour Cities and were the direct results of new achievements of marine transports, which was flourished there through the Influence of industrial Revolution more than ever¹⁰. The economical auspicious situation of Ludwigshafen made the BASF Company be headquartered in this City in 1856 and this interact the City and the Company both positively: The inhabitants grew up from 700 (1843) to 12853 ca. 18 times more and just within 15 years¹¹, today is the population 1474000 persons and the total area of the city 305 square kilometres. For sure this city is not the best example considering the topic New Towns, however just economically it can be brought out as a positive one: the net annual income of the city amounts to 8 billion Euro in the last year.

In this period are the New Towns in Germany more experimental experiences. Since there was no clear instruction and know-how for this field - especially regarding the new opened thematic in urban design e.g. transport, new urban facilities and so on -, they became the first prototype of modern new towns. That is the reason, why they were also more self-grown and can not be exemplary.

2. The first New towns in the 20th century until the First World War: The Garden City movement developed from Ebenezer Howard (1898)¹² exert important influence on the urban planning in Europe at the beginning of the 20th century, practically the German New Towns, while the English New Towns were comparably influenced from the pattern and the idea of Robert Owen¹³ (1813, 1836), which was more functional and industrial. Those English New Towns, which are formed after Garden city pattern, are in despite of German ones more compatible to Howard's definition, whereas in the German pattern there was rarely all of the fundamental characters of a New Town. They could be more categorized as Settlement and residential Complex¹⁴, often because of lack of economical indecency, necessary for a New Town and the first principle of Howard's Pattern for Garden city. Any how between 1900 and 1918 - partly until the first years of the second World (1939) - are several New Towns constructed after Howard's pattern in Germany (Fig. 4), at that time was this concept reckoned a modern tendency in the urban planning in particular in Central Europe. In Fall 1902 Bernhard Kampffmayer established the "the German association of Garden city"¹⁵, it was inspired from an identical constitution in England. One of the first activities of "the German association of Garden city" - apart from translation and publication of Howard's script in Germany - was editing and preparing of legal basis for the public and private spaces in Garden Cities, also preparing urban concepts and planning detailed architectural plans¹⁶. The first example was the city Helerau (1909) close to Dresden. This New Town is the first German New Town, which there was a social and human reform and the principle of high quality of life designated and planed before construction and at the same time followed by relatively satisfied results¹⁷. Richard Riemerschmid (Architect and Town Planer) considered as main Concept for the city four main areas: An industrial area (for the Factories of Karl Schmidt, who was the founder of the city), a residential district with the one-family houses and one for general urban facilities and one district of Villas. This Composition of the City is based on a social hierarchy regarding the Inhabitants, which were mostly the company employee. One of this Categories of New Towns is Staaken close to Berlin (1913-1917) and Margaretenhöhe close to the City Essen (1913)¹⁸. There is also other examples like Town Marga (1907)¹⁹, which demonstrated a concept similar to a Garden city, but they didn't have the theoretical model and that was, why they can't be known as an original Garden city. They were more output of concerns for form (Fig. 5). The Pattern of Garden city was actually the consequence of Industrial Revolution, in the strict sense of industrial cities, which declared itself in the first prototype Europe and also in the Germany, like the later organic urban concepts developed from Reichow in the 50's and 60's of the 20th century. The Pattern of Garden city was in deed a way to relatively balance the urban situation specially regarding the functional and geographical situation of particular spaces.

3. The New Towns between 1st and 2nd World Wars, ideal political New Towns: The First World War, which ended with the defeat of the Central Powers, caused the ruination and come-down of several German Cities and Towns, so that the urban development was mainly dedicated to the rehabilitation and renovation of these cities during the post-war years. The rise of National Socialist German Workers Party²⁰ in country (NSDAP or the Nazi Party; 1933-1945) and the fast economy growth presented in this period a special concepts for the urban development, which had to be initially in favour of ideology, politic and quick growth of economy.

Consequently the cities and towns known as “the Fürher Cities” are planed²¹. One of the most significant cities was Wolfsburg. This New Town was planed under Hitler’s command and his personal supervision (cf. e.g. Hitler’s’ lecture at 26 May 1938). Its concept should present an ideal model namely a so-called “Utopia” for German Nation and further promised it a better life and affect for Germans an excellent encouraging example of life under Nazism. This Example was especially essential - of course in term of the Nazi Party - to improve the self-confidence of Germans, which was lost after the First World War. However it was intelligently planed for ideological principles, but it followed also concretely purposeful industrial and economical targets: the City should be the headquarter of a huge factory complex the Volkswagen AG Corporation (Volkswagen: literally *people’s car*²²), which was founded as a public concern in 1937 in order to produce the legendary Volkswagen Beetle²³ automobile. During the war the industrial complex produced not only Automobiles, but also was suspicious to generate different warfare, hence it was also a long-term decision in favour of the militarily concerns. Besides the Prototype of the car called primary KdF-Wagen (KdF²⁴: strength through joy), subsequently the city was also called KdF-Stadt (KdF-City), a city which had to reflect its motto.

the Nazi Party was proud of the colossal industrial Complex, the product line and the production itself, then the city should also reflect this national Pride. This aim was to accomplish in the residential districts both their quality and their quantity. Besides it was important to design some different monumental buildings for the city, in order to show allegorical the character and he motto of the city. Therefore it was decided to prepare a complete master plan and analyse program for the urban concept, at the same time was a modern concept highly appreciated to give also the modern German family also a modern background for life (Fig 6). The Habitations, whatever villa or flat, were designed and defined in the minutest details and are called also “Volkswohnungen”²⁵ (The Flats of the Nation).

The other New Towns in this period had more or less the similar formation phase, it was also constantly the pure functional purposes regarded, for instance in the case of Wolfsburg the decision of the location was made strongly in consideration of its central position in Germany and its suitable transportation opportunities, e.g. Railway Berlin-Essen, German east-west Freeway and the central canal. This was an essential and fundamental character for such a huge industrial Complex.

In spite of all these high pretensions for Wolfsburg the budget for planning and construction of the city was not substantial more than German projects²⁶. The financial problems and further the Second World War hindered the fulfilment of the project Wolfsburg, in other words all part of the original concepts. A great part of the constructions were also destroyed during the War, especially as it was an industrial combustion point. The city was reconstructed in the 50’s of 20th. Although Wolfsburg was not realized completely but its influence remained strongly on the German New Towns, both on their concepts and substance.

4. Post War New Towns, New Town or Settlement: The main focus was after the Second World War the Rehabilitation of the destroyed cities, which were even more ruined than the First World War. Several New Towns were constructed like Wulfen (1958) and Sennestadt (1959-1969)

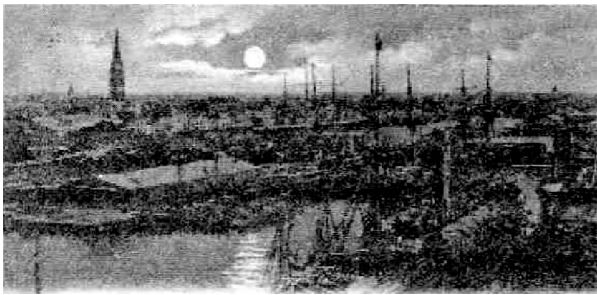
in West Germany and Eisenhüttenstadt (Stalinstadt) in DDR during this period and in the 50's and 60's (Fig 7). The main focus was the Organic City and the best example, which influenced the German Urban Planning in the following years was the Pattern developed from Architect and Town Planer Bernhard Reichow. His Work "Die autogerechte Stadt, Ein Weg aus dem Verkehrschaos" (1959) and his Plans, e.g. Sennestadt (1959-1969) or Limesstadt in Taunus (1959), were focused on applying an organic concept and regarding the urban landscape.

During the last years the urban developing experienced a considerably dynamic situation in Germany, several new urban concepts are developed, a number of huge Settlements constructed up to 90's e.g. Nordweststadt (1959) with 24000 population in the suburb of Frankfurt and other examples close to other German big cities, those are very similar to a new town, but none of them was a real New Town - regarding the definition of the New Town. After German Unity (1990) the construction project were mainly focused on the renovation of poor urban areas in former East Germany, the projects like the City Centre of Berlin (Potsdamer-Platz) obtained the main priority at the mid of 90's, a numerous project, which was for a while the largest construction project in Europe, but there was no need to construct a New Town, that's why inter alia a New Town was not developed in Germany during last years.

The Future of German New towns and some lessons for Iranian ones

The Absence of New Towns in German Urban strategies during the last thirty years is one of the direct results of the stagnating of population, which made the creation and planning of New Towns useless. In addition the post industry Technology - nowadays most directly reliant on computers - doesn't need anymore huge industrial Complexes and consequently Towns based on the existence such industrial Poles; if at all these Complexes are constructed more and more in Asia or Latin America, which offer cheap manpower and have uncomplicated e.g. ecologic, economic commandments. Consequently drops out an important reason planning New Towns, in counties like Germany and almost in Central Europe. In Germany instead is the main tendency the revitalisation and reactivation of urban substance, viz. projects like "social city", "city 2030" and especially focus on town centre, adding to those also constructing new districts inside the cities and Settlement in suburbs. In despite to these countries the developing countries in Asia and Latin America are planning and constructing New Towns, especially China, India, Malaysia, Indonesia, and Vietnam (Asia) and Brazil and Argentina (Latin America). These countries are facing yet with a massive population and a rapidly developing economy particularly in industry. Considering the capital investment of international affiliated groups in these countries the New Towns are desired, to be the centre of these industrial poles und and more of Heavy Industries, which was considerable in Europe at most up to the end of the 20th century. These industrial Poles can be Settlements but also New Towns, which is also in country like Iran the case.

The Analyse of European experiences - here Germany - demands a pattern, which should consider the upcoming problematic now, above all the estimated demographic changes. During the next years the mentioned countries - mostly developed countries - will face the same situation like Central Europe, above all the shrinking of cities. Thereby the New Towns will become there as well redundant. Hence it is very important to consider some features by the planning and constructing of the New Towns, which can held them also in future attractive and useful, otherwise for sure they can not compete against the old cities with their many centuries of history and identity.



3. a. Bremerhaven in the first years, 1896 (an old Post card)



3. b. Bremerhaven today (Cf. Bremerhaven in: Brockhaus multimedial 2004 [CD-Rom])



1. The damages of the First World War in a German little Town; Gerduan before (1915) and after (1926) the restoration (Düwel 2001, P. 64)



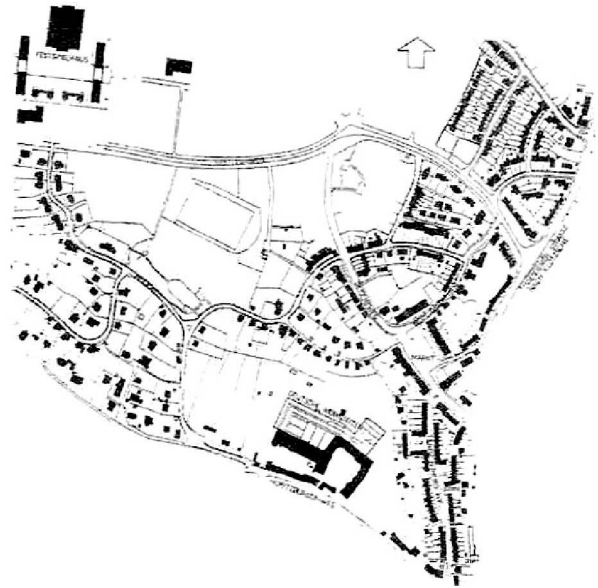
4. Main German Garden Cities between to World Wars (after Düwel 2001, P. 49)



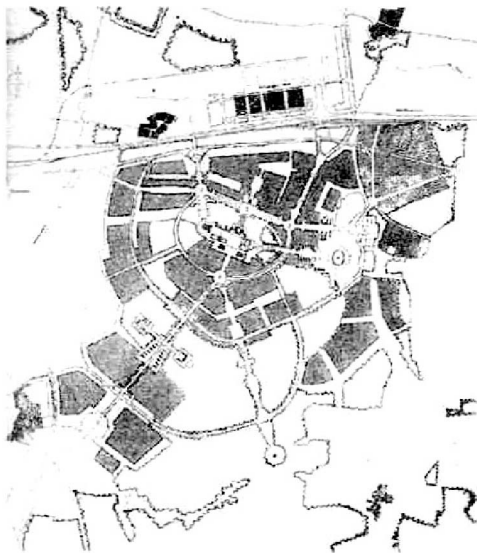
2. The German Cities, that required restoration after the Second World War (after Düwel 2001, P. 138)



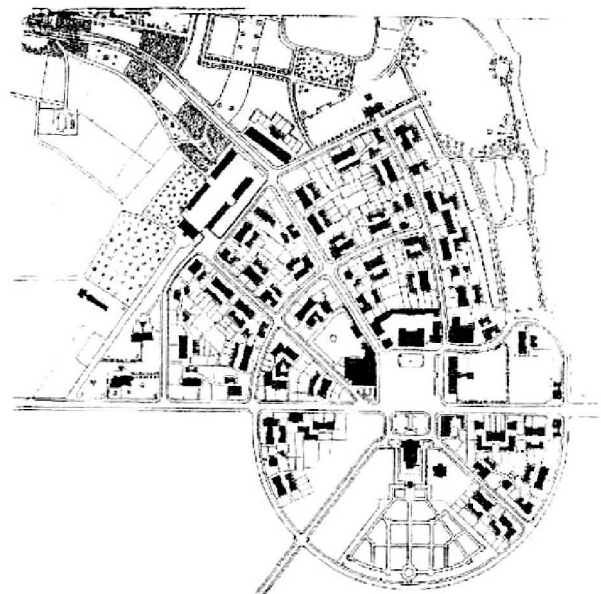
c. Garden City Margaretenhöhe (Joswig 1994, P. 12)



5. a. Garden City Hellerau (Joswig 1994, P. 13)



6. The Plan of Peter Kotler and his cooperators for Wolfsburg (Kautt 1983, P. 469)



5. b. Garden City Marga (Joswig 1994, P. 14)



7. The Plan of B. Reichow for Sennestadt (Reichow 1965, P. 4)

Bibliographv

1. —, , Der Brockhaus Multimedia 2004 (Encyclopedia), ed. Bibliographisches Institut & F. A. Brockhaus AG, Ver. 6, Mannheim 2004 [CD-Rom].
2. —, —, Handwörterbuch der Raumforschung und Raumordnung, vol. 2, Hannover 1970.
3. Berning, Maria/Natrup, Wilhelm, Neue Stadt Wulfen, Berlin 1987.
4. Düwel, Jörn/Gutschow, Niels, Städtebau in Deutschland im 20. Jahrhundert, Leipzig/Stuttgart/Wiesbaden 2001.
5. Etesam, Iraj, A comparative Analyse of Iranian and European Architecture and Urban design, in: Essays of International Congress of the history of Iranian Architecture and Urban design [1995 Bam], vol. 1, 1996 Tehran, pp. 89-110.
6. Gurney, John D., The transformation of Tehran in the later nineteenth century, in: Téhéran capitale bicentenaire, ed. Institut Farancais de Rechrche en Iran, Paris/Teheran 1992, pp. 51-71.
7. Hofrichter, Hartmut, Stadtbaugeschichte von der Antike bis zur Neuzeit, Braunschweig 1991.
8. Hotzan, Jürgen, dtv-Atlas zur Stadt- von den ersten Gründungen bis zur modernen Stadtplanung, München 1994.
9. Irion, Ilse/Sieverts, Thomas, Neue Städte, Stuttgart 1991.
10. Joswig, Wolfgang, Marga, die erste deutsche Gartenstadt, Cottbus 1994.
11. Kautt, Dietrich, Das Werden einer Industriestadt im Wandel städtebaulicher Leitbilder, dargestellt am Beispiel der neugegründeten Stadt Wolfsburg (Dissertation), Bamberg 1983.
12. Mohr, Hans , Ludwigshafen am Rhein- eine bedeutende Hafenstadt, in: Ludwigshafen am Rhein, Stadt der Chemie, ed. Stadtverwaltung Ludwigshafen am Rhein, Hanau 1959.
13. Recker, Marie-Luise, Die Großstadt als Wohn- und Lebensbereich im Nationalsozialismus, zur Gründung der "Stadt des KdF-Wagens", Frankfurt 1981.
14. Reichow, Hans Bernhard, 10 Jahre Sennestadt, Sennestadt 1965.
15. Rühl, Konrad, Neue Stadt Wulfen (Architektur-Wettbewerbe/Sonderhefte 1958), Stuttgart 1962.
16. Scarce, Jennifer M., The arts of the eighteen to twentieth centuries, in: Cambridge history of Iran, from Nadir Shah to the Islamic Republic, ed. P. Avery/G. Hambly/C. Melville, vol. 7, Cambridge 1991, pp. 890-958.
17. Stracke, Ferdinand, Wolfsburg, fünfzig Jahre Stadtentwicklung, Braunschweig 1988.
18. Zahn, Erich, Planung neue Stadt Wulfen (Architektur-Wettbewerbe/Sonderhefte. 1958). Stuttgart 1965.

(Footnotes)

- 1- Cf. Gurney 1992, p. 53. Cf. Scarce 1991, p. 892.
- 2- Cf. Etesam 1996, p. 92.
- 3- Cf. *Industrielle* Revolution in: Brockhaus multimedia1 2004 [CD-Rom].
- 4- E.g. the English New Towns between 1941-1973 were 31, in the same time German New Towns were not even ten. Also cf. New Towns in: Brockhaus multimedial 2004 [CD-Rom].
- 5- E.g between Germany and Denmark (1850-1848, 1864) also Germany and France (1870-1871) and the First and Second World War (1914-1918 and 1939-1945).
- 6- Kommunale Selbständigkeit (German).
- 7- Cf. Handwörterbuch *der Raumforschung und Raumordnung* 1970, p. 2074.
- 8- Since 19 th Century.
- 9- Cf. Hofrichter 1991, p. 105.
- 10- Cf. Berning 1978, p.5.
- 11- Cf. Mohr 1959, p.66.
- 12- Ebenezer Howard. Cf. *Tomorrow: A Peaceful Path to Real Reform*.
- 13- *A new view* of society and Thebook of *the new moral world*. Cf. also Robert Owen in: Brockhaus multimedial 2004 [CD-Rom].
- 14- Cf. Düwel 2001, p. 45, 49.
- 15- DGG: Die deutsche Gartenstadtgesellschaft.
- 16- Cf. Düwel 2001, p. 45.
- 17- Cf. Ibd., p. 47.
- 18- Cf. Berning 1978, p.5.
- 19- Cf. Joswig 1994, pp. 10-16.
- 20- Nationalsozialistische Deutsche Arbeiterpartei.
- 21- Die Führerstädte. Cf. Hofrichter 1991, p. 127.
- 22- Hitler's desire was, that almost anybody should be able to afford a car coincided with the concept of this car.
- 23- Kafer
- 24- Kraft durch Freude
- 25- Cf. Recker 1981, p. 48, 65.
- 26- Hitler refused every extra financial aid to the project. cf. "Strack 1988", p.11.