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# On the origin and typology of 'company towns' in Germany

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## Contents

1	Introduction .....	2
2	Significant housing estates in Germany .....	4
2.1	1681 <i>Industriegut</i> [Industrial Grange] Hammer near Nuremberg .....	4
2.2	1844 Eisenheim Oberhausen .....	6
2.3	1857 Kuchen Baden-Württemberg .....	8
2.4	1868 Colonie Stahlhausen Bochum .....	9
2.5	1872 <i>Union Vorstadt</i> Dortmund .....	10
2.6	1899 <i>Kolonie Zeilsheim</i> .....	10
2.7	1908 <i>Gartenstadt</i> Hellerau Dresden .....	11
2.8	1909 Teutoburgia Herne .....	12
2.9	1910 <i>Siedlung</i> Margarethenhöhe Essen .....	12
2.10	1922 <i>Siemensstadt</i> Berlin .....	13
2.11	1951 Eisenhüttenstadt .....	14
2.12	1963 <i>Neue Stadt</i> Wulfen Barkenberg .....	16
3	References .....	17

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## 1 Introduction

The term 'company town' in Germany denotes an 'industrial housing estate' or a 'workers' housing estate'. Well researched are related social issues and histories of very many such estates in Germany. Also the 'Garden City Movement' and its housing estates that are not assignable to specific companies are of relevance in this context. The further development of the underlying idea gave rise to cooperative housing and municipal housing associations. Rental housing is still of higher significance in Germany than in other European countries.

'Social housing' schemes were initiated in Germany after WWII to subsidise company-independent housing. The range of 'company towns' in Germany stretches from 'industrial housing estates' to founding new cities (Wulfen, Wolfsburg, etc.), e.g. for 60.000 inhabitants. Highly interesting are typological approaches and their further development in the 19th and 20th centuries. Development progressed from simple semidetached houses to cross floor plans with very high housing density (cf. Eisenheim). First examples of multi-story show double-fronted typologies, both in Wilhelminian Period characteristics and in later modern linear buildings in the 1920s. Townhouses and terraced houses can be found in all generations: They embody an urban base type that can be traced back to the *Fuggerei Augsburg* from 1521, the oldest social housing project in the world for needy townspeople (two-storied houses, flat sizes ca. 60 sqm on ground and first floor). This type can also be found in modified form in Dresden-Hellerau in 1908, as an element of the garden city typology.

A 'genuine' company town presupposes adequate communal facilities and infrastructures. Dresden-Hellerau is a model example shining in this respect: Washing and bath-house, school, kindergarten, community centre (in this case even a festival hall), practices, shops and restaurants; designed by renowned architects: Richard Riemerschmid, Heinrich Tessenow, Hermann Muthesius, Theodor Fischer and others.

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Such quality standards also applied to the well-known Foundation Housing Estate Margarethenhöhe (Margarethe Krupp Foundation) built in 1906. Architect Georg Metzendorf executed the overall design. In the 1920s, eminent architects and urban planners provided new impetuses for housing estate buildings (Ernst May, Max and Bruno Taut, et al.), later also the 'Bauhaus' architects. Historical review:

Precursors of 'company towns' in Germany are located, for example, in Schwabach. There is proof of first workers' housing in the crafts sector. Schlüpfinger describes in his book about Schwabach: In 1686, the regency council decreed the establishment of a '*Manufactur de Tapisseries*', fitted on the ground floor with seven heatable rooms, seven bathrooms and kitchens.(Schlüpfinger 1994, 47) Ten knitting machines were said to have been operated on the top floor. The local authority and the municipality were forced to drudgery to complete the project. 'The large edifice built in 1688/89 served to manufacture tapestries and as dwelling of carpet weavers.'(Hammer, 47) It is also recognisable that the majority of craftsmen were French, expelled Huguenots.

Germany showed the same trends in the 19th century as observed in England. The beginning of the Industrial Revolution in Germany can be dated between 1815 (Kiesewetter 1989) and 1835 (Henning 1973, 111). In contrast to England, the major industry was not the textile but the coal and steel industry. Growth in all industrial sectors required larger quantities of resources, i.e. more raw materials but also more labour were sought after. Raw material needs were satisfied by developing iron ore deposits while increased demands for labour could not be satisfied locally; hence, housing had to be provided for new arrivals. First housing projects accommodated highly-qualified staff; housing for manual labour was only gradually provided.(Kastorff-Viehmann, *Wohnungsbau für Arbeiter: das Beispiel Ruhrgebiet bis 1914* 1981, 8)

A distinction has to be made between housing estates for company-specific workforce and other workers' housing estates or social projects. In the first model, an enterprise acts as builder-owner and flats are exclusively made available to corporate staff and their families.

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Such benefits often forged strong bonds between employers and employees, all the more so when such projects included social amenities, shopping and assembly facilities.

## 2 Significant housing estates in Germany

The following selection shall provide a cross-section of archetypical workers' and housing estates residential in Germany. The total number of such developments is of course dramatically larger, notably when housing estates of public employers (post, railway, etc.) are included.

- 1681 -*Industriegut* Hammer near Nuremberg
- 1844 -Eisenheim Oberhausen
- 1857 -Kuchen Baden-Württemberg
- 1868 -Colonie Stahlhausen Bochum
- 1872 -*Union Vorstadt* Dortmund
- 1899 -Kolonie Zeilsheim
- 1908 -Garden City Hellerau Dresden
- 1909 -Teutoburgia Herne
- 1910 -*Siedlung Margarethenhöhe* Essen
- 1922 -*Siemensstadt* Berlin
- 1951 -Eisenhüttenstadt
- 1963 -*Neue Stadt* Wulfen Barkenberg.

### 2.1 1681 *Industriegut* [Industrial Grange] Hammer near Nuremberg

Already before the Industrial Revolution, there were housing estates resembling the later 'company towns' in Germany, for example the *Industriegut* Hammer east of Nuremberg, borough of Laufamholz. Its first documentary mentioning was in 1492; in 1681 the estate comprised the manor, operational buildings, workers' living quarters, a school and a pub. All in all, the housing estate consisted of 20 buildings and 30 flats. One benefit of its location was that it was not subject to the Nuremberg trade regulations, but also lacked its protection.

(Weinrich n.d.)



(a) Workers' dwelling



(b) Workers' dwelling

In 1824, 144 people lived in twelve main buildings and worked for the then largest factory in the *Nürnberg Land* District. Awards won in 1834 at the Munich Industrial Exhibition and a Golden Industrial Award in Bombay for brass sheeting for temple roofs are indicators of excellent quality. The factory owners, however, did not only provide housing but also additional social benefits, such as disability, old-age and widows' pensions on the one hand, to ensure workforce loyalty and, on the other, to help keep trade secrets confidential. (Weinrich n.d.) Workers in Hammer were granted additional social benefits; such were voluntary and based on the Hammer Mill Agreement of 1396. The following lifelong benefits were assured:

- non terminable employment contracts
- Right to works housing
- Pensions for widows and orphans
- Free-of-charge schooling in the factory-owned school
- Taxes, municipal charges and drudgery fees were paid by factory owners
- Continued wage payment even when sales dropped. Additional earnings were permitted. (Hammer 1994, 19)

The Hammer Mill provided free-of-charge maintenance of the houses since the Middle Ages, such as annual wall limewashing and stove repair. In addition, the workers enjoyed free supplies of heating materials and almost rent-free housing. (Hammer 1994, 40)

Building services and utilities were modernised in the course of time: running water, replacement of 'German fireplaces' by 'Russian fireplaces' and around 1920 the flats were equipped with electricity. (Hammer 1994, 12) The death knell for the estate was tolled in WWII by a bomb raid. (Altnürnberg Landshaft n.d.) In 1977, Hammer was classified as a

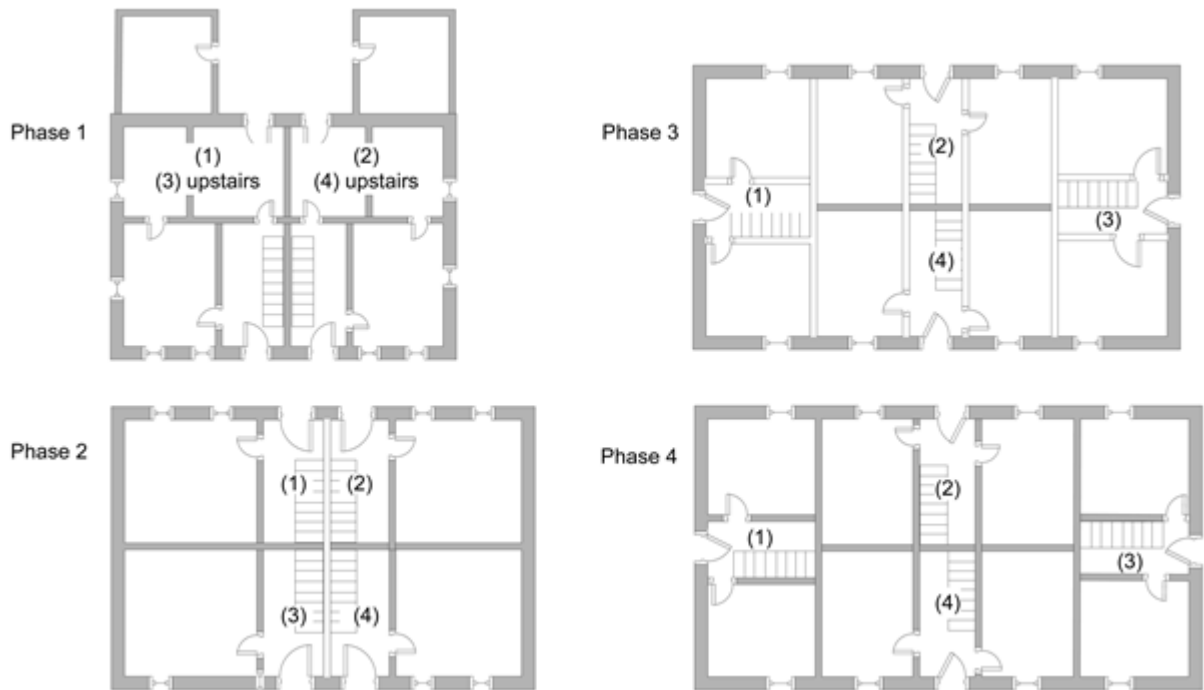
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historical monument. The residential buildings were refurbished between 1982 and 1985 (Hammer 1994, 15) and some are still inhabited.(Riebe n.d.)

## 2.2 1844 Eisenheim Oberhausen

Founded by three ironworks merged under the name of 'Hüttengewerkschaft und Handlung Jacobi, Haniel und Huysen' (later Gutehoffnungshütte) (Teves 2010), Eisenheim according to Grollmann was the first housing estate for workers in the Ruhr Area.(Grollmann 1996) The ironworks was extended in the 1830s, prompted by the then railway construction boom. (Morsch 1990) Then ironworks director Hermann Wilhelm Lueg planned in 1844 'to build housing for 50 families on an eight-hectare property, half an hour away from the then city centre. Construction commenced in 1846 and in year 1 the first seven so-called foremen's houses and three two-storied semidetached houses were completed included another seven houses with so-called **cross floor plans** which provided a total of 24 flats. (Günter and Günter 1999, 33) Previously, the flats had been exclusively let to iron mill workers, now miners from Osterfeld colliery were accepted as tenants.

Phase 3 was characterised by a modification of the previous cross floor plan (Figure: Floor plans of the four phases). Hitherto, the access for two families had been on one side of the house. The new floor plan allowed for accessing each flat from a separate side of the building, i.e. the tenant had the feeling of living in their own home. (R. Günter 1996) Only one house of this type was built (1872) (Günter and Günter 1999, 33-34) but the new cross floor plan proved a successful concept that was adopted later in many housing estates (Günter and Günter 1999, 41).



The housing estate was extended by 30 houses from 1897 to 1903. The last building was the kindergarten built in 1910. (Pamp n.d.) In the final built-out phase the housing estate comprised 51 buildings. (Morsch 1990, 17) Losses of two buildings in Fuldastreet suffered in WWI were compensated by a rebuilding scheme (costs per foreman's house more than 20.000 DEM) (Morsch 1990, 17) and eventually the housing estate of the colony 'Eisenheim' was listed in 1991. (Oberhausen 2005) The brisk growth in the region and continually increasing manpower demand sparked intensified construction of housing estates by large corporations in the Ruhr Area, according to Morsch (Morsch 1990), in order to tie several permanent staff to their firms. All in all, *Gutehoffnungshütte* built 14 housing estates which were sufficient to five to six per cent of the workforce. (Morsch 1990, 13-14) For Eisenheim, Lueg resolved to use a concept that originated in the Saarland **the premium house scheme**.

«Under this scheme, each miner was offered a premium of 25 to 40 thalers which, at costs of 400 thalers for a single-family house, amounted to six to ten per cent of the price. In addition, a loan between 100 and 150 thalers at four per cent interest was granted. Typical instalments amounted to one to two thalers for principal repayment and interest.»(Slota 2005)

Lueg advocated a combination of rental and employment contracts which resulted in a decisive advantage for the owners of housing estates, the industrialists. Workforce fluctua-

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tion rates, elsewhere as high as 120%, dropped to 7,5%. (Marjan and Rueß n.d.) The ownership structure has not changed much over the years, the houses were not privatised after WWII and are now managed by the trust agency *TreuHandStelle GmbH (THS GmbH)*.(Maessen 1995)

### **2.3 1857 Kuchen Baden-Württemberg**

Baden-Württemberg boasts a distinctive housing estate named Kuchen, founded in 1857 by Arnold Staub, an industrialist and founder of the cotton industry in southern Germany. Staub commissioned architects Georg Morlock and Leonhard Zeugheer. Calvinism-influenced Staub interfered into all living spheres of workers with stringent rules. (B. Kuchen 2011) Beside provisions stipulating the duty of weekly «...sweeping with water», he also decreed a mutual six-week termination period, «however, any person that leaves work on his own and without cause (...) will forfeit his entitlement to the said termination period.» (Hubert Treiber 2005, 165-168)

The design by Georg Morlok provided for five flats, each flat came with a flower and vegetable garden. It was followed in 1862 by the so-called 'Lodging House' [*Kosthaus*] with a dining hall and flats and the 'Staircase House' [*Stiegenhaus*] with flats and a dining hall (till 1875) that was fitted with warming equipment. In 1863, another residential building with five flats was built at Neckarstr. 71. The ground floor accommodated flats and the first floor had rooms for single women, which earned the building the name 'Girls' Home [*Mädchenheim*]. A dwelling at Neckarstr. 64 was built in Swiss cottage style in the following year, as was a multipurpose building (Bleicherstr. 19) which provided apartments, a library, a kindergarten, on old people's home, a pharmacy, a reading room for men and an assembly room for single female workers. The frontage is fitted with arcades and the sides are bordered by two building wings. The housing estate was completed by a washing and bathhouse in 1869. The building included an apartment, a laundry with ironing room, an indoor swimming pool and a steam bath. (G. Kuchen n.d.)





(a) Neckarstr. 71 - built in 1863 (b) Neckarstr. 64 - built in 1864 (c) Bleicherstr. 19 - built in 1864



(d) Bleicherstr. 19 backside - built in 1864 (e) Neckarstr. 68 - built in 1869 (f) Bleicherstr. 17 - built in 1886/87

*Süddeutsche Baumwolle-Industrie AG* Kuchen went bankrupt in 1983 and the property was bought by the municipality. Four years later, the workers' housing estate was included into the State Refurbishment Program Baden-Württemberg under which 27 flats were modernised to meet current standards. Also various conversion projects were executed, e.g. at the buildings Neckarstraße 68 that had been originally used as a washing and bathhouse and later as a festival hall. 2,7 million DEM were spent on converting it into a kindergarten and an apartment. Disused factory buildings were demolished and made way for re-development schemes. (G. Kuchen n.d.)

## 2.4 1868 Colonie Stahlhausen Bochum

Another important housing estate is situated in Bochum. The so-called Colonie Stahlhausen, founded in 1868 by Jacob Mayer and Eduard Kühne for the workers of the cast-steel factory 'Gussstahlfabrik Mayer'. Residents were offered residential buildings but also a church, a kindergarten, a girls' school, a dining hall and a guest house. The first 30 houses were built from 1868 to 1872, the housing estate was enlarged to 400 flats in the following two years. At the beginning of the 20th century, the buildings were modernised to meet then contemporary standards and embellished which reflected increased demands to such flats. (Hedrix and Oberbürgermeisterin 2009)

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The buildings in this housing estate were erected in the so-called ***Mühlhausener type***. This type uses a cross floor plan and the four flats in such buildings have separate entrances. Thus, neighbourhood conflicts could be minimised and, as a further advantage, families could be better isolated in cases of contagious diseases. The entryway situation at the front is identical to that at the rear. The front and rear sides have two entrances each. War-destroyed buildings were replaced after WWII by functional new-builds. (Kröck, et al. 2011) The housing estate is still inhabited and in private ownership. (Industriekultur n.d.) When rumours started that the housing estate was to be listed, several residents became active and re-painted various building sections for fear that this would later be impossible. (Weeke n.d.) A kindergarten is still operated on the premises.

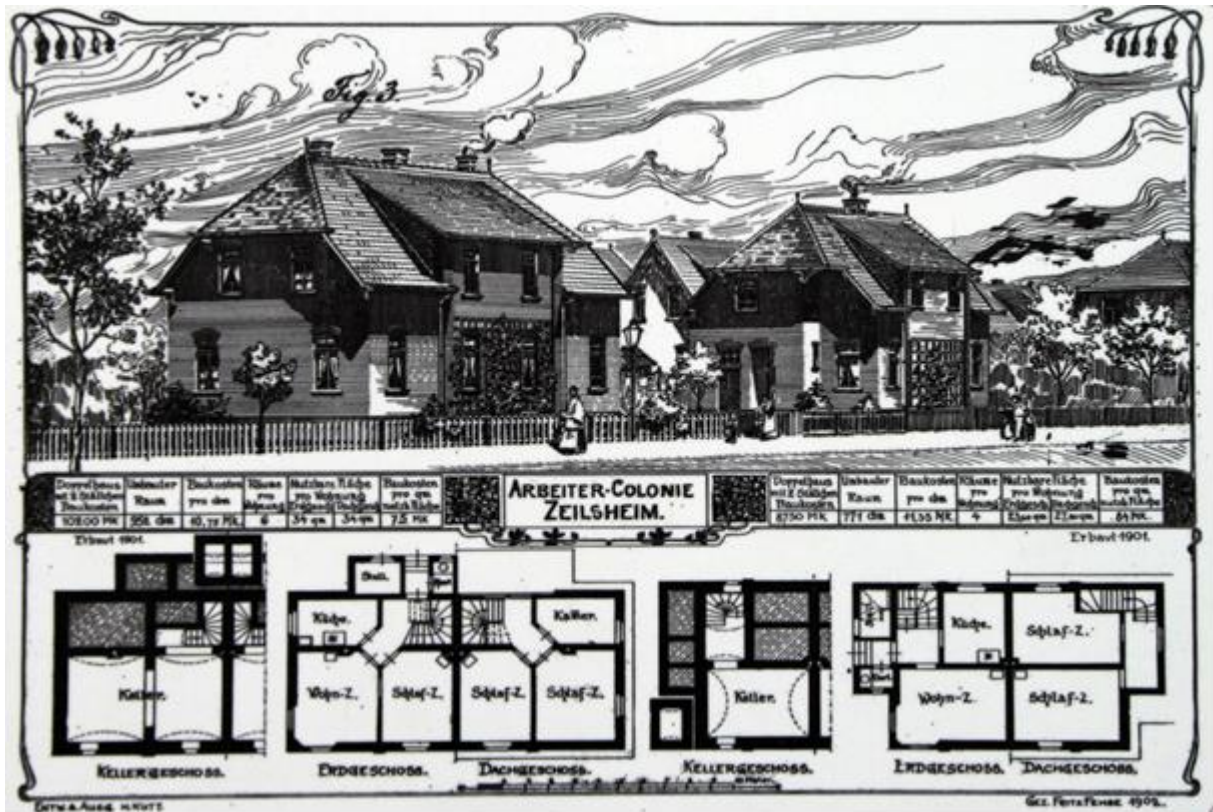
## **2.5 1872 *Union Vorstadt* Dortmund**

Another housing estate that was completely demolished is *Union-Vorstadt* in Dortmund. In 1872, the ironworks *Hüttenwerke Union* had 34 houses with 120 flats, one school, grocery store and a market garden near the river port. (Kastorff-Viehmänn 1989, 109) The predominantly two-storied buildings with two to three-room flats on 30 sqm to 50 sqm were deemed by the builder-owners to be a model housing estate. (Winter 1991, 26-29) The housing estate in the river port district was severely damaged during air raids in WWII. In 1960 it was decided to knock down the housing estate to clear the land plots for use by the port. Today, the property accommodates warehousing facilities of a logistics company and is not accessible to the public. Today, the only reference to the *Union-Vorstadt* housing estate is an information board.

## **2.6 1899 *Kolonie Zeilsheim***

*Farbwerke Höchst* commissioned construction of *Kolonie* [Colony] Zeilsheim in 1899. Their in-house architect Heinrich Kutt designed 456 apartments. Single and two-family houses provide to each family a garden with 250 sqm and a barn for self-sufficiency. Floor spaces were sized as follows: Single-family homes 45,6 sqm. (Christ 1993, 20) There were two different floor plan variants for two-family homes: 51,4 sqm or 68 sqm per dwelling unit. A

church was built in 1912 next to Käthe Kollwitz School (built in 1902) at the western edge of the housing estate. The housing estate is listed and was privatised in the 1990s.(Unknown n.d.)



## 2.7 1908 Gartenstadt Hellerau Dresden

The garden city concept was also adopted in Germany. Furniture manufacturer Karl Schmidt had the Housing Estate Hellerau (original name: 'Au am Heller') designed for the *Deutsche Werkstätten* north of Dresden in 1908. (Hellerau n.d.) Architect Richard Riemerschmid planned workshops and the housing estate with associated communal buildings, practices, shops, a washing and bathhouse, a school and a school student boarding house and a home for single staff members. In 1911/2, a festival hall complemented the housing estate. (Hellerau n.d.) By 1913, 345 small dwellings were built and accommodated 400 families.

The terraced houses were managed by a cooperative building society which pre-empted property speculations by stipulating that the real property was not for sale and having an unchanging value. WWI brought about a change and the cooperative was forced by financial

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difficulties to sell off 336 small flats to private parties. Subsequently, the housing estate was extended by several buildings. Garden City Hellerau is currently preparing an application for inscription onto the UNESCO World Heritage List. (Miersch n.d.)

## **2.8 1909 Teutoburgia Herne**

The housing estate Teutoburgia is located in the Börning borough of Herne. It belonged to the Teutoburgia colliery, was founded in 1909 and extended by new-builds until 1929. The underlying idea for its design was the garden city concept. 1.400 residents lived on 21,4 hectares in 136 buildings with 495 dwelling units. (unknown 2002, 228) Various facade and roof designs provided for a diversified outer appearance of the buildings. (Pirke 1998, 29) The original owners, *Vereinigte Stahlwerke AG*, were replaced in 1954 by the newly founded *Vereinigte Elektrizitäts and Bergwerks-Aktiengesellschaft (VEBA AG)*. (Herne n.d.) In 1962, the housing estate was modernised and, in the course of road redevelopment, was fitted with a sewerage system and street lighting. Several residents refashioned their houses in the post-WWII period so that the uniform appearance was somewhat lost. All-out refurbishment of the housing estate was initiated in 1980 by the new owners, *Veba Wohnen AG*. In 1989, the estate was included into the program of the International Building Exhibition (IBA) *Emscher Park* and at the same time the '*Teutohof*', built from 1918 to 1919, was listed. This sharpened the focus in heritage management aspects: All external building surfaces were re-built to their original conditions with exemplary involvement of the respective tenants. (Pirke 1998)

## **2.9 1910 Siedlung Margarethenhöhe Essen**

Essen is home to another outstanding example of housing estate construction: It is not a classical workers' housing estate but housing built by a foundation the Housing Estate Margarethenhöhe. Margarethe Krupp Foundation, established by Margarethe Krupp in 1906, funded the construction project. (Krupp-Stiftung n.d.) Design and construction work was performed from 1910 to 1917 under architect and urban planner Georg Metzendorf. The housing estate was oriented on the garden city design principles and, although not organised as

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a cooperative, was officially recognised by the German Garden City Society (Reinborn 1996, 45-46). Another novelty was the fact that, in contrast to previous housing estate projects, Krupp also provided dwellings for senior staff, civil servants and members of the middle classes, i.e. the flats were not exclusively let to workers and employees in Krupp factories and their families.

The current situation can be described like this: 65 ha, 8.000 residents in 3.091 dwelling units, of that: 1.423 old buildings and 1.668 new-builds (post-1948). There are 1,5-room to 5,5-room flats, two restaurants and one hotel, 63 other commercial units, two community centres for senior citizens, a Protestant and a Roman Catholic church, two kindergartens, a school, a sports facility and a senior citizens' home with nursing care ward. The Margarethe Krupp Foundation is still in charge of letting and managing all related properties. (Krupp-Stiftung n.d.)

Detached gable-fronted houses were built in construction phase 1 in 1910/1 (notably along *Steile Straße*), in den the following phases Metzendorf combined dwelling units into rows of houses that were loosened up by varying distances from roadways. One special feature was the well thought-out arrangement of the cooking stove at the centre of the floor plan in order to heat all rooms in an apartment through vertical ventilation ducts. In addition, there were sculleries provided to ease more convenient use of dining kitchens.(Rheinische Industriekultur n.d.)

## **2.10 1922 Siemensstadt Berlin**

One of the most significant later-period housing estates is Siemensstadt in Berlin. On 1 August 1899, the still existing Siemens cable factory at Rohrdammbrücke began operations. The most important task for Siemens was to provide for the housing estate close access to public transport (Hengsbach 1974, 7) because already in 1900, Siemens had a workforce of 1.200 staff. The housing estate was developed in three phases: The first housing estate, where Siemens acted as builder-owner, was built between 1922 and 1932. *SiWoGe*, a housing society founded on 11 July 1919, had 530 dwelling units constructed in four build-

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out phases under lead architect Hans Hertlein. (Ribbe 1985, 193) The houses contained comfortable flats appointed with stove heating, bathrooms, balconies and gardens. Beside Siemens subsidiaries, also the Municipality of Spandau was an original shareholder. Previously, Siemens had funded housing projects but never acted as builder-owner. (Hengsbach 1974, 11,36) Siemensstadt, or Siemens Housing Estate, is located between Rohrdamm to the west and Im Heidwinkel to the east, and to the north is bordered by Harriesstraße and to the south by Dihlmannstraße. The first construction phase included erection of two and three-storied blocks of flats at Rohrdamm and single and double-storied multi-family terraced houses, including a market square along Rapsstraße (1922 to 1925). The second phase (1926/7) comprised construction two large three-storied terraced house blocks and further terraced houses to the north of Rapsstraße. In 1928-1930, phase 3 included construction of four three-storied terraced houses in Rieppelstraße and rural one to three-storied estate houses. The residents had a total of ten shops available. Until well into the 1980s, exclusively employees of Siemens and their families lived in the *Siemensstadt* flats. Construction phase 4 (1931/2) comprised building of single and multi-family houses for rental purposes. Buildings for senior managers were built after phase 4 between 1932 and 1934. The 120 houses that were built under this scheme were based on ten floor plan variants and various floor plan sizes. This housing estate was called 'Siemens Home-owners' Estate' [*Eigenheimsiedlung*] and denotes the ownership structure that was not connected to Siemensstadt. (Bienek 1992, 81-83) In 1995, both housing estates, *Siemensstadt* and *Siemens-Eigenheimsiedlung*, were listed.

## **2.11 1951 Eisenhüttenstadt**

The 'Socialist Unity Party of Germany' in the German Democratic Republic (GDR) resolved at its 3rd party congress in 1950 to construct an iron and steel works, its location was determined on 17 August 1950. In 1950 and 1951 there were the foundation stone laying ceremonies for the blast furnaces and the first residential complexes. Original planning provided for 30.000 residents, the town was extended to seven residential areas until 1984.

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The following seven residential complexes (WK) were built:

**WK I 1951:** Plain residential buildings were constructed in open linear and terraced style

**WK II 1953 - 54:** Residential buildings arranged as enclosed perimeter block housing

**WK III 1955:** Modelled on WK II, larger courtyards

**WK IV 1958 - 61:** Additional buildings of same type in courtyards to increase population density

**WK V 1959 - 64:** Extension of the residential development to 50.000 residents, in large-sized block construction

**WK VI & WK VII 1965 & 1979 1985:** More residential buildings in linear arrangement.

Since 2003, predominantly buildings in WK VII have been demolished. (Eisenhüttenstadt 2009) Complexes I - IV are listed.



(a) Building in WKII



(b) School



(c) Restaurant 'Aktivist'



(d) Hospital



(e) Supermarket



(f) Building WKIII

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## 2.12 1963 *Neue Stadt Wulfen Barkenberg*

Mining sites relocated to the north and in Wulfen the first shaft thinking operation for Wulfen colliery was made in 1958. The miners were to be accommodated in a housing estate modelled on the garden city concept. An international urban development competition was initiated which was won by Berlin-based architect Prof. Fritz Eggling in 1961. The general parameters were as follows: (Weiß n.d.)

- Anticipated number of residents in 1990: 60.000
- Commercial areas for 'complementing operations and businesses'
- Observance of natural surroundings
- Complete infrastructure, public amenities, commercial areas.

A housing estate with a high percentage of green space coverage was built, a ring road encircles the housing estate, traffic right of way is left before right. Separate footpaths and bicycle trails are provided.

Various housing types were designed and built: *Finnstadt*, *Metastadt* and *Habiflex* are salient examples. A highly flexible floor plan arrangement as to be enabled, interior walls can be moved with little effort (Schmidt, Barkenberg am See 2012). The *Metastadt* was demolished in 1987 after structural defects were found; including water penetration and defective insulation. (Herbert Wiethoff Immobilien n.d.) Two-storied terraced houses were the most built type. The colliery failed to achieve the envisaged coal outputs, hence, extension of the housing estate was shelved and the oversupply of floor space even led to demolition of several buildings. (Schmidt n.d.) An urban redevelopment program (2006-13) will invest 11,4 million EUR in public and another 7 million EUR in private funding in order to adapt the new town to the current housing demand. (Bauckhorn n.d.)



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