HOUSING ESTATES IN THE BERLIN MODERN STYLE
NOMINATION FOR INSCRIPTION ON THE UNESCO WORLD HERITAGE LIST
HOUSING ESTATES IN THE BERLIN MODERN STYLE
NOMINATION FOR INSCRIPTION
ON THE UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION WORLD HERITAGE LIST

EXECUTIVE SUMMARY

State Party
Federal Republic of Germany

State, Province or Region
Federal State of Berlin

Geographical coordinates to the nearest second

Gartenstadt Falkenberg
terrestrial longitude East 13° 34' 00"
terrestrial latitude North 52° 24' 39"

Textual description of the boundary(ies) of the nominated property

Gartenstadt Falkenberg
Boundaries: shared outer boundaries of the lots Akazienhof 1–26, Am Falkenberg 118–120, Gartenstadtweg 15–66, 68/72, 74–99

Siedlung Schillerpark
Boundaries: the streets Bristolstraße, Dubliner Straße (street section: Dubliner Straße 62/66), Corker Straße, Barfußstraße (street section: Barfußstrasse 23/31). The front garden area along Corker Strasse is part of the area being nominated.

Großsiedlung Britz (Hufeisensiedlung)
Section I:
Boundaries: the streets Fritz-Reuter-Allee (street section: Fritz-Reuter-Allee 2/72, 78/120), Talberger Straße, Paster-Behrens-Straße (street section: Paster-Behrens-Straße 53/77), Parchimer Allee (street section: Parchimer Allee 96/104), Onkel-Bräsig-Straße (street section: Onkel-Bräsig-Straße 12/142, boundary line along the back of the lot boundaries bordering the school grounds and the "Fennpfuhl"), Stavenhagener Straße (boundary line along the back of the lot boundaries bordering the "Akazienwäldchen"). The front garden areas along the streets are part of the area being nominated.

Section II:
Boundaries: the streets Buschkrugallee (street section: Buschkrugallee 177/221, boundary line along the back of the lot boundaries bordering the Buschkrug allotment gardens), Parchimer Allee (street section: Parchimer Allee 10/32, boundary line along the back of the lot boundaries bordering the Buschkrug allotment gardens) and
Buschkrugallee (street section: Buschkrugallee 223/247), Parchimer Allee (street section: Parchimer Allee 7/29), Grüner Weg (street section: Grüner Weg 2/34). The front garden areas along the streets are part of the area being nominated.

The entire width (road, median strip, and pavement) of Parchimer Allee (street section: Paster-Behrens-Straße to Grüner Weg), as a connecting link between Sections I and II, is part of the area being nominated.

Wohnstadt Carl Legien
Boundaries: the streets Küselstraße (street section: Küselstraße 4/6, 16/18, 28/30, 34), Sültstraße (street section: Sültstraße 11/25, boundary line along the back of the lot boundaries and street section Sültstraße 30/44), Erich-Weinert-Straße (street section: Erich-Weinert-Straße 98/100), Lindenhoekweg, Südtkestraße (street section: Südtkestraße 38/46), Georg-Blank-Straße (street section: Georg-Blank-Straße 1/5), Gubitzstraße (street section: Gubitzstraße 32–46). The front garden areas along the streets are part of the area being nominated.

Weiße Stadt
Boundaries: the streets Genfer Straße (street section: Genfer Straße 45/119), Emmentaler Straße (street section: Emmentaler Straße 40–56, boundary line along the back of the lot boundaries), Baseler Straße (street section: Baseler Straße 55/57), Bieler Straße, Gotthardstraße (street section: Gotthardstraße 4/8), Romanshorner Weg (street sections Romanshorner Weg 54/62 and Romanshorner Weg 61/79, boundary line along the back of the lot boundaries and street section Romanshorner Weg 96/212), Schillerring (street section between Romanshorner Weg and Aroser Allee), Aroser Allee (street section between Bieler Straße and Gotthardstraße, street section: Aroser Allee 141/193 with the “bridge house” Aroser Allee 153–154). The front garden areas along the streets are part of the area being nominated.

The entire width (road and pavement) of Jungfernheideweg and Goebelstraße are part of the area being nominated.

Großsiedlung Siemensstadt (Ringsiedlung)
Boundaries: Mäckeritzstraße, the S-Bahn (west of Jungfernheideweg), the intersection Mäckeritzstraße / Jungfernheideweg / Popitzweg with boundary (across the railway line of the S-Bahn) up to the former settlement power station Goebelstraße 55A, through the streets Goebelstraße (street sections: Goebelstraße 1/55 and Goebelstraße 120/122 with boundary line along the back of the lot boundaries), Heilmannring (street section: Heilmannring 98/100), Geißlerpfad, Heckerdamm (street section between Geißlerpfad and Jungfernheideweg, excluding the school property Heckerdamm 295/299), Jungfernheideweg (street section: Jungfernheideweg 21/45, with boundary line along the back of the lot boundaries). The front garden areas along the streets are part of the area being nominated.

The political and economic transformations in Germany after it had lost the First World War made the development of housing estates the subject of social policy. After Berlin’s incorporation of surrounding communities to form one large city in 1920, the Social Democrats acquired ever more influence on municipal urban development. The new trade union and cooperative building societies like GEHAG, which were their close allies, propagated the modern social housing development. Greater Berlin with its spacious undeveloped properties became the site of experiments in developing modern flats for the people. When the architect and Social Democrat Martin Wagner was elected urban development councillor in 1926, he embodied both movements at the same time: the political movement and that of the reformist experts.

The Berlin settlements, which had attracted the attention of experts and of the specialised press even when they
were first built, acquired a symbolic value also in the discourse on the history of 20th century architecture: along with Bauhaus and the buildings of Neues Frankfurt, they appeared in all relevant publications as exemplary achievements of modernist architecture and urban development. However, they are not just part of history. They suffered little damage during the Second World War and from improper renovation and thus are still standing today, surrounded by spacious gardens and green areas: attractive residential areas whose tenants often pass on leases from one generation to the next.

A new concept of spatial and social structure was implemented in Berlin with these housing estates. Most but not all of them were erected outside the city that was laid out in James Hobrecht’s master plan of 1862. No longer were the city’s less prosperous inhabitants to be hidden away in the smaller, less healthy, worse flats in the basements, wings, cross buildings, attics and overcrowded tenements of the densely built-up city centre. They were to get visible space for themselves both for the privacy of their families and for their public representation as a social class, as well as for presenting the settlement communities.

In their design work, the imagination of the architects aimed both at developing functional floor plans for flats that would promote health and family life and at arranging the buildings in larger urban structures, while always keeping in mind the points of the compass and insolation. Common spaces were to offer “Aussenwohnräume” (outdoor living spaces) (Taut), which would invite them to spend time outside enjoying the sunlight and fresh air and, last but not least, would help fight tuberculosis, still rampant in Berlin at the time. One of these outdoor living spaces formed by a particularly impressive and powerful urban structure has become the symbol of the housing estate movement: the horseshoe, centre of the Hufeisensiedlung built by Bruno Taut and Martin Wagner in Britz from 1925 to 1930.

Choosing between the many larger and smaller Berlin settlements and residential estates is not easy. Many of them have been preserved, most of them are attractive, and all of them are different. Some of them have a dense urban structure, others are open and dotted with green spaces, some are based on a conservative artistic design in the spirit of the Heimatschutzbewegung (movement for the preservation of regional culture), others have a more expressionist style. The choice was made mainly on the basis of the following four criteria:

- The particular significance of the architectural design and of the urban structure from the point of view of the arts
- The good condition of the original structure
- The social policy intentions of the developers
- International awareness and recognition

It is certainly no coincidence that most of the settlements chosen are works by Bruno Taut. Like no one else’s, his name is linked with the heyday of social housing construction in Berlin during the years of the Weimar Republic. His cooperation with the Berlin urban development councillor Martin Wagner yielded exemplary successes. Four settlements were chosen from his rich oeuvre in Berlin. They are all different from each other, and their differences illustrate the stages of Taut’s artistic development as an architect and urban developer:

- **Gartenstadt Falkenberg** (1913–1916), developed by a building cooperative as a model for reforming housing estates and living, which emerged as the result of criticism of big city life and the Berlin tenement house system

- **Siedlung Schillerpark** (1924–1930), one of the first urban residential projects built after the end of the First World War in Berlin; an ideal combination of all the features of the new social housing developments that also embodies the model of a modern culture of urban life

- **Großsiedlung Britz (Hufeisensiedlung)** (1925–1930), the first large German housing estate built after the end of the First World War and the years of inflation; aimed at providing humane, healthy and hygienic living conditions also for low-income groups by offering various forms of housing

- **Wohnstadt Carl Legien** (1928–1930), which, as the most urban and most compact large housing estate in Berlin, manages – despite its density – to create a housing environment that appears green and open, thanks to a building design opened up to light and air in an exemplary way

The following two large housing estates were erected at the same time and represent other approaches to design and urban development:

- **Weiße Stadt** (1929–1931), which was built as a large housing estate with an urban character, consisting of ribbon buildings with green spaces in between; anything but monotonous, free and abstract spatial designs for modernist settlements were tried out here

- **Großsiedlung Siemensstadt** ((Ringsiedlung), 1929–1931), a functional housing estate pointing the way to international modern urban development and thus anticipating the model of a spacious, structured city dotted by green spaces
Weiße Stadt (1929–1931) was designed by the Swiss architect Otto Rudolf Salvisberg, who was also responsible for the master plan, and the two Berlin architects Bruno Ahrends and Wilhelm Bünning. Siemensstadt was mainly designed by Hans Scharoun, who also did the master plan. Walter Gropius, Hugo Häring, Otto Bartning, Fred Forbat, Paul Rudolf Henning and Hans Scharoun himself designed the buildings. Both settlements have become symbols of international modernist design in Berlin and beyond. Not only do they represent a paradigm shift in architecture and urban development, they also reflect a change in social structures, which was expressed by the development of mono-functional satellite settlements with a clear division between spaces for living and working.

This meant that leading architects of classical modernism were involved in developing housing estates in Berlin. Bruno Taut’s four settlements, Weiße Stadt, and Siemensstadt reflect the development from garden town ideas to cityscapes in Hans Scharoun’s spirit. Each of the housing estates represents another stage, another and very specific variation within the broad range of urban and architectural design possibilities. All of them achieved international renown, were discussed by the international specialised press, and were frequently visited even at that early stage by interested experts.

Criteria under which property is nominated

(II) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design

The six Berlin estates are examples of the paradigm shift in European housing construction, since they are an expression of a broad housing reform movement and, as such, made a decisive contribution to improving housing and living conditions in Berlin. Thanks to their exemplary character, their influence was felt all over Europe. With modern flats with bathrooms, kitchens and sunny balconies in houses with spacious recreation spaces and playgrounds and without multiple courtyards and wings, these housing estates set a hygienic and social standard far removed from Berlin’s inhumane tenement system of densely packed blocks of flats. Shortly before the First World War, ninety per cent of the Berlin population lived in tenements with four or five storeys. Nearly half of the flats were located in rear buildings and nine out of ten flats did not have a bathroom.

During the Weimar Republic, the worsening shortage of housing and the collapse of privately financed housing development made housing construction a social policy challenge also in Berlin. With political support from Germany’s Social Democrats and from the trade unions, trade union cooperatives and municipal and other non-profit societies began financing new social housing in Berlin.

The construction of settlements is an urban planning and architectural response to social problems and housing policy issues arising in regions with high population density. Novel housing estate forms developed in particular during the first decades of the 20th century in big European cities and metropolises. Building authorities, architects and urban planners often cooperated on these new settlements, which created better living conditions for the poorer strata of the population in particular. Their quality of urban development, architecture and landscape design, as well as the housing standards that were developed during this period, served as a guideline for the social housing constructed after the end of the Second World War, and they retained their exemplary function during the entire 20th century.

Berlin was a city whose population had multiplied in just a few decades as a result of industrialisation, and into the 1920s it was characterised by a shortage of housing and miserable living conditions in hopelessly overcrowded tenements. In this situation, the housing reform movement was able to generate initial momentum mainly in housing projects organised on a cooperative basis. Gartenstadt Falkenberg was built already before the First World War. It was a settlement project that aimed at creating a new way of living, and with its standardised house forms and ground plans for flats it served as an important model for others.

In the 1920s, renowned designers, municipal authorities and housing societies in Berlin developed social housing construction to a level that was outstanding by international standards. The creation of social policy, economic, architectural and legislative instruments made it possible to implement hundreds of development projects. Housing construction had previously been left almost entirely to speculators. Proven experts now approached it systematically, in the interest of benefiting the public and on the basis of the most advanced knowledge of architecture, urban development, hygiene and social science.

The nominated settlements were part of a broadly based housing construction programme in Berlin that led to the building of 140,000 flats within just a few years. This mass housing development was closely linked to new concepts for the spatial and social structure of the city. Martin Wagner, the city’s urban development councillor at the time, developed a modern urban planning concept based on a model of functional separation. This model was to contribute to breaking up the contrast between city and countryside, a contrast that was especially marked in
Berlin’s case. In the city itself dense residential quarters with open structures of multi-storied buildings dotted with green spaces filled gaps in the urban structure (Siedlung Schillerpark, Wohnstadt Carl Legien), while large housing settlements with spacious green spaces were embedded in the landscape of Mark Brandenburg on the outskirts of the city (Hufeisensiedlung Britz, Weiße Stadt, Großsiedlung Siemensstadt).

(IV) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history

These Berlin settlements are extraordinary examples of the housing developments built during the early decades of the 20th century and were models for housing and living in the big cities of the modern industrial society.

Internationally renowned architects like Bruno Taut, Walter Gropius, Otto Rudolf Salvisberg and Hans Scharoun developed new and exemplary settlement structures. These not only facilitated the provision of healthy flats with attractive amenities, but also offered a basis for new forms of housing and living. These housing estates were designed with community facilities offering an exemplary social and service infrastructure and a wide range of communal functional and event spaces, spanning models like the experiment of a cooperative-based community, Taut’s “outdoor living space” and Scharoun’s concept of “neighbourhood”. The participating architects developed new types of ground plans for houses and flats that responded to modern demands on housing.

The best of the housing estates built during this period produced excellent solutions to the problem of designing housing for many people living together in limited space. They combined extraordinary architectural designs and diversity of settlement structure and building form with intelligent integration into urban structures in order to develop useful and varied flats in healthy environments. Light, air and sunshine were keywords. They also provided guidelines for the design of the settlements’ communal facilities, such as playgrounds, spacious outdoor facilities and tenants’ gardens. Renowned garden architects like Ludwig Lesser and Leberecht Migge ensured that these reformist ideas were implemented in an outstanding way.
4. Wohnstadt Carl Legien

Prenzlauer Berg

Scale / Maßstab 1: 7.500

Source Plan / Kartengrundlage:
Landeskartwerk K5 - Oktober 2003

Monument / Baudenkmal
Area of nominated property / Nominierungsgebiet
Buffer Zone / Pufferzone

Surface / Fläche:
- 8.4 ha
- 25.5 ha
- Total / Gesamt: 33.9 ha
HOUSING ESTATES IN THE BERLIN MODERN STYLE

NOMINATION FOR INSCRIPTION
ON THE UNESCO WORLD HERITAGE LIST

JANUARY 2006
Fig. 1: „Konservierung der Moderne?“ (Conservation of Modern Architecture?) Documentation of the ICOMOS conference, 1996. front page
“As the second artistic capital of Europe, after Paris, Berlin was clearly likely to produce work of interest, but it contained, in addition, a remarkable group of architectural talents. No other centre in the early Twenties could have boasted, as Berlin could, more than a dozen progressive architects of more than average competence, sufficiently resilient in mental constitution to take in their stride a major aesthetic revolution, from Expressionism to Elementarism, and to design in either style with equal vigour and assurance.”

Reyner Banham,
Theory and Design in the First Machine Age, London 1960

THE LEGACY OF THE BERLIN MODERN STYLE
LARGE HOUSING ESTATES AS A CULTURAL ACHIEVEMENT

The years between the two world wars – or more precisely between the November revolution of 1918 and Hitler’s seizure of power in January 1933 – were the years of Berlin’s transformation into a metropolis of modern art. In 1920, after incorporating a number of surrounding towns and villages, “Greater Berlin” had become one of the world’s largest cities (876 square kilometres), and in terms of population the world’s third largest after New York and London. It was considered to be the most important industrial city on the European continent, a traffic hub, a European air hub and an attractive location for international fairs and modern media institutions.

The legendary “Golden 20s” are indelibly associated with the image of Berlin as one of the world’s leading centres for culture and the arts. Internationally renowned artists lived and worked here. The “Weltstadt” of the Weimar Republic, as town planner Martin Wagner called it, was a magnet for the international avant-garde and a focal point of the cultural debate between tradition and modern age. Many artists, authors and journalists, painters and sculptors, theatre directors and film makers, musicians and actors of international standing visited the city or had links to it, hoping to draw inspiration from it or to be well received in the city’s cosmopolitan atmosphere. Others lived and worked here at least for a while or permanently.

The end of the First World War, the collapse of the German Empire, the fall of the monarchy and the proclamation of the Republic sparked new hopes in Germany’s political and artistic circles, some of them related to a utopian dream of socialism. The years following the November revolution were characterised by the quick development of critical, usually anti-bourgeois and often international groups of artists such as Club Dada (1918 with Richard Huelsenbeck, Raoul Hausmann, George Grosz, John Heartfield, Hannah Höch etc.), the circle of the Berlin Constructivists (1922 with Naum Gabo, El Lissitzky, Laszlo Moholy-Nagy, Oskar Nerlinger), or the Blue Four (1924 with Wassily Kandinsky, Lyonel Feininger, Paul Klee, Alexej Jawlensky). Some of these artists were also involved with the Bauhaus movement, both in Dessau (1924–1925) and in Berlin (1932/33). But Berlin was not only a magnet for the avant-garde in the visual arts: it also attracted renowned and innovative personalities in the world of theatre, music and literature: directors and authors Bertolt Brecht and Erwin Piscator, Alfred Doblin and Erich Kästner, journalists Carl von Ossietzki, Kurt Tucholsky and Egon Erwin Kisch. Composers and musicians such as Max Bruch, Arnold Schönberg, Kurt Weill and Hanns Eisler confirmed Berlin’s reputation as an incubator for innovative aesthetic and political concepts.

Fig. II: Opening of the 1st International Dada Fair on 5 July 1920 in Berlin
The new media – not only the young world of radio broadcasting but also the rapidly growing cinema industry – quickly found producers and audiences in Berlin's open-minded and cosmopolitan culture. Universum Film AG (UFA), founded in Berlin in 1917, became the largest company of its kind outside the USA, and Berlin became known as the world's most important film and cinema location after Hollywood. Directors and actors such as Wilhelm Murnau, Fritz Lang and Marlene Dietrich made their debuts or experienced their breakthrough as artists in Berlin before emigrating to the USA. With his 1927 film montage "Berlin – Sinfonie einer Grossstadt", Walter Ruttmann created a memorial to the city and its cinematographic avant-garde. Fritz Lang's “Metropolis”, produced by UFA in Berlin in 1925/26 and first shown there in 1927, was added to UNESCO's Memory of the World register in 2001. Legendary cinemas in the Berlin Modern style – the Babylon, by Hans Poelzig, or the Universum, by Erich Mendelsohn, for instance – are architectural memorials to the early years of the new medium.

A European metropolis of modern architecture

Architecture and urban development played a key role in the artistic and social reform movement that characterised the revolutionary period of 1918/19 and the short cultural upswing experienced by the Weimar Republic until the world economic crisis of 1929/30. The “November Group”, which included artists (Max Pechstein, Käthe Kollwitz, Cesar Klein, Rudolf Belling etc.) as well as architects (Erich Mendelsohn, Ludwig Hilberseimer, Ludwig Mies van der Rohe, Hans Poelzig and others), and the Berlin “Arbeitsrat für Kunst” (Working Council for Art), dating from the same period and including the young architects Bruno Taut, Walter Gropius, Otto Bartning, Adolf Meyer and many others, provided inspiration in the early years and fulfilled a catalyst function for the phase of consolidation which followed. Filled with a revolutionary spirit, these groups published manifestos calling for a radically new relationship between art and life and attributing a leading role to architecture in the construction of a new society and a new environment. This revolutionary impetus is reflected in an early appeal of the Working Council, formulated in 1918 by architect Bruno Taut: "Art and the people must be united to form one entity. Art shall no longer be the preserve of a selected few but a source of happiness and life for the masses. The aim is to unite the arts under the umbrella of great architecture. From now on the artist, shaper of popular sensibilities, bears sole responsibility for the visible appearance of the new state. He must define all design from urban architecture to coins and postal stamps".

The association of architects founded in 1923/24 by Mies van der Rohe, Max Taut, Erich Mendelsohn, Hugo Häring, Hans Scharoun and others under the name “Der Ring” (initially a ring of ten, then twelve, and finally 27 members nationwide as of 1926) developed into a kind of “Sezession” of German architects. It provided a common platform for many different movements of modern architecture between the two world wars and brought together representatives of Neue Sachlichkeit and Bauhaus as well as advocates of Organic Architecture. The Siemensstadt housing estate, designed by a number of leading members of the Ring, was soon nicknamed “Ring Estate”. The greatest significance of this circle of architects, however, was its enormous external impact as a multiplier for modern architectural programmes. In 1928 its activities provoked a strictly conservative counter-initiative called “Der Block” – an association of nationalistic colleagues created by Paul Bonatz, Paul Schmitthenner, Paul Schulze-Naumburg and others.

In the 1920s, Berlin also increasingly attracted renowned architects from outside the city who wanted to take a stance in the ongoing architectural debate by giving lectures, holding exhibitions or designing buildings. Hannes Meyer’s Bundesschule des Allgemeinen Deutschen Gewerkschaftsbundes (Federal School of the General German Trade Union Federation) in Bernau on the outskirts of Berlin (1928) and Emil Fahrenkamp’s Shell-Haus (1930) are reminders of this trend to the present day. Berlin’s role as an international meeting place for modern artists of the inter-war period and
its position at the centre of the international architectural debate were the result of its open, cosmopolitan atmosphere, which had started before the Great War and developed rapidly during the years of revolution and inflation. Guest lectures and exhibitions in Berlin and study visits to the city as well as lecture tours, study visits and working visits of German planners and architects abroad intensified this international exchange of opinion and experience. Colonies of foreign artists from neighbouring European states, in particular from Russia (“Charlottengrad” was the nickname given to the Berlin district of Charlottenburg), Italy and France and even from America, were the visible signs of this new dialogue across national borders and art genres.

Under the Kaisers, the interest of the German reform movement in architecture, housing construction and crafts had focussed on the “English example” (Stephan Muthesius), in particular on the English Garden City Movement, the Arts and Crafts Movement and middle-class housing construction in Great Britain, while acknowledging only marginally developments in France, Belgium, Holland or especially in the United States. In the Weimar Republic, Berlin architects and architectural journalists were mainly influenced by developments taking place in Russia and Holland. In Holland, the housing law of 1901 had laid the legal and financial foundations for efficient residential construction by housing associations. Bruno Taut travelled through the Netherlands in 1923 to study housing estates built with state subsidies. As early as 1920, Erich Mendelsohn had been invited on a lecture tour of Holland, and in 1923 he held his hallmark lecture on dynamics and function in Amsterdam. J.J.P. Oud, Theo van Doesburg and El Lissitzky are among the many foreign architects whose work was perceived as particularly inspiring in the Berlin of the 1920s.

“Das Neue Berlin” (The New Berlin) – title of the “monthly journal for the problems of the city” founded in 1929 by the Berlin urban development councillor Martin Wagner following the example of Ernst May in Frankfurt – shows that Berlin understood itself above all as the capital of a new culture of architecture and building. In no other field of culture did Berlin make such a mark as the “avant-garde centre of the universe” as in the field of architecture and urban development. Much of its cultural and urban identity was based on the large-scale urban development projects and building activities of the inter-war years. Berlin owed its reputation as an international centre of urban development reform and modern architecture to bold and visionary designs as well as to sensational new buildings popularised in publications and lectures as programmatic contributions to a new culture of building. Utopian and mainly Expressionist projects such as the architec-
tural fantasies of Bruno Taut – Auflösung der Städte (dissolving the cities), Die Stadtkrone (the city crown), Alpine Architecture, etc. – or Hans Scharoun’s organic design of the Volkshaus contributed to this reputation, as did unbuilt competition entries or design ideas such as Mies van der Rohe’s glass high-rise building project for Berlin or the radical proposals for urban restructuring reflected in Ludwig Hilberseimer’s city architecture. Even no longer existing sculptures and buildings from those years, for instance the Expressionist auditorium of Hans Poelzig’s Grosses Schauspielhaus or Mies von der Rohe’s monument to Rosa Luxemburg and Karl Liebknecht, have found their way into our collective memory of buildings and images.

Yet Berlin’s reputation as a city of great modern architecture and urban planning is mainly founded on buildings and urban development projects which were actually implemented. One of the earliest examples of early twentieth-century world-class architecture is the AEG turbine hall by Peter Behrens (1909), which paved the way for a new type of aesthetics in industrial buildings. The structures erected after World War I were, for instance, emphatically modern trade union buildings by Bruno and Max Taut and by Erich Mendelsohn (the ADGB building on Wallstrasse, the printers’ union building on Dudenstrasse, the DMV building on Alte Jakobstrasse), avant-garde office buildings by Peter Behrens and Bruno Paul (the Alexander and Berolina buildings at Alexanderplatz, the Kathreiner building at Kleistpark) or Haus des Rundfunks (the radio broadcasting house) by Hans Poelzig and the Funkturm, the radio telecommunication tower on the trade fair grounds, by Heinrich Straumer. In terms of design, they symbolise a radical break with the architectural views of the Empire, and functionally they reflect completely new tasks to be fulfilled by buildings and architecture. Together with school buildings and public social facilities such as the Wannsee beach public bath (Martin Wagner, Richard Ermisch) with its programmatic design, they are the highlights of the new city and examples of a modern, cosmopolitan and egalitarian city architecture.

The new architecture’s main urbanistic and social contribution to a modern image of cities and society, however, was made in the field of housing and estate construction. Particularly worthy of mention in this respect are the spacious rental housing estates at the edges of the inner city expansion areas and in the suburbs, which had been made accessible thanks to modern city transport and which had gradually become part of the fringe areas of the city as a result of the formation of Greater Berlin. Leaving aside the prominent residential villas and ensembles of the liberal bourgeoisie and notable houses of artists or architects, the large housing...
estates for the general population are the true embodiment of the reforms in building and social policies that took place between the two world wars in the field of urban development and housing. Nowhere else are the social intentions and dimensions of the debate on modern architecture and urban development between the two world wars more clearly reflected than in the non-profit and cooperative housing development projects of those years.

Housing construction in Berlin grew enormously after the mid-1920s, in particular under the Social Democratic urban development councillor Martin Wagner (1926–33), an excellent organiser and multiplier of the reform policies. The main precondition for this great achievement was the focused bundling of instruments of state intervention and promotion with regard to building and housing legislation as well as to the financing and management of large numbers of flats. A housing programme of hitherto unimaginable scope could be implemented thanks to consistently standardised design, planning and construction and to political support for highly efficient construction companies and large non-profit housing associations. While Berlin had built approximately 9,000 subsidised rental flats during the hard post-war years between 1919 and 1923, another 135,000 units were built between 1924 and 1930.

Berlin’s contribution to the cultural world heritage of the twentieth century

In the 1920s, Berlin was sensationaly renowned as the city of modern architecture, thus securing its position in the annals of twentieth-century world architectural history. The first edition of the volume Berlin. Kunstdenkmäler und Museen (Berlin, Monuments and Museums), published in 1977 by Reclam as part of the “Kunstführer Deutschland” (Art Guide for Germany) series, claims that the re-design of Berlin during the first third of the twentieth century was of world standing – “perhaps this is Berlin’s only architectural achievement which really deserves this rank.” Yet, in contrast to the Berlin Schinkel school of the nineteenth century or to the progressive “Amsterdam school of architecture” or especially the conservative “Stuttgart school of architecture” of the twentieth century, the Berlin Modern style of the years between the two world wars appears to be less closed and schoolish. Its transnational, indeed intercontinental influence was based on the manifold biographical intertwinings of its main actors and even more on their enormous lecturing, publishing, travelling and teaching activity at home and abroad. Not to forget the many structures built by its protagonists and students in many parts of the world. Visits to other countries or emigration due to the world economic crisis and in particular as a result of the persecution of Jewish, socialist or oppositional artists and architects during the Nazi years contributed to the spread of Berlin examples of modern inter-war architecture all over the world. Bruno Taut (1880–1938), for instance, who had gone to Russia together with some co-workers in 1931, had to emigrate to Japan in 1933 and got an appointment in Istanbul in 1936. Martin Wagner (1885–1957) emigrated to Turkey in 1936 and to the USA in 1938, where he was appointed professor for urban development at Harvard University.

When preparations for updating the German tentative list for the UNESCO world heritage began in 1995, two Berlin proposals for the heritage of the twentieth century were on the agenda. One of them was the industrial heritage of “Electropolis Berlin”, in particular the monuments of industry and technology built in the first third of the twentieth century by Berlin electrical engineering and power-supply companies, the top global players in their market at the time. The other was the heritage of modern architecture and publicly assisted housing development in the Weimar Republic. In 1997, the German federal conference of state ministers of education and cultural affairs gave priority to six large housing estates built in the 1920s in the Berlin Modern style. This selection was based on the forty or so years of experience gathered in conserving the housing estates built in the Berlin Modern style between the two world wars and on the wish to complement the World Heritage List with examples of twentieth-century archi-
WORLD HERITAGE NOMINATION HOUSING ESTATES IN THE BERLIN MODERN STYLE

tectural heritage, which is still under-represented in the list, and of mass urban housing resulting from industrialisation and urbanisation.

The Berlin initiative was confirmed by the Montreal Action Plan of ICOMOS (2001), which had been prepared during the international ICOMOS conferences in Helsinki (1995) and Mexico (1996). The ICOMOS study on the representativity of the World Heritage List – “The World Heritage List: Filling the Gaps – an Action Plan for the Future” – presented in February 2004 at the request of UNESCO stated that there was a lack of items from the past century and requested the signatory states of the UNESCO World Heritage Convention to review and improve their priorities in a dialogue with experts of organisations such as ICOMOS, DOCOMOMO, TICCIH, etc.

Nationally and internationally, the six nominations – housing estates built in the Berlin Modern style between the two world wars – represent key products of twentieth-century publicly assisted housing development. The selected estates are outstanding combinations of architectural and urbanistic trends in modern mass housing construction and examples of the variety of approaches to social and housing policy reforms that influenced the European architectural debate even beyond Berlin and Germany. They are not unique model projects or individual prototypes like those presented as potential solutions to housing problems at nineteenth-century world exhibitions or as part of model collections at Werkbund exhibitions in the twentieth century. Nor are they special or isolated solutions for industrial centres or conurbations as had already been implemented and encouraged by philanthropic or non-profit actors before the first world war. Rather, these six chosen estates are typical of many Berlin housing areas mixed with green spaces as they were erected between the two world wars and still exist today. From an urbanistic point of view, these spacious estates represent an alternative form of development and housing to the extremely dense tenement buildings of the nineteenth century.

In terms of typology and functionality, the Berlin housing estates which have been proposed for entry in the World Heritage List cover a segment of twentieth-century cultural history which is not or only very insufficiently covered by the UNESCO World Heritage List: the task of developing mass housing facilities in coherently planned, erected and occupied urban units. Leaving aside the eminently significant historic locations of war and peace, of political persecution and resistance in the twentieth century (the concentration camp at Auschwitz-Birkenau (Oświęcim), the rebuilt centre of Warsaw, the Hiroshima Peace Memorial – Genbaku Dome), which form a category of their own, some cultural world heritage sites of the twentieth century represent ensembles of a particular architect’s oeuvre or

Fig. VII: Ludwig Hilberseimer: Design study for restructuring the Berlin city centre, 1928
are precursors or early forms of modern architecture with historic roots in the years before and after 1900 (the Victor Horta townhouses in Brussels, the work of Antoni Gaudi in Barcelona). Others represent in a narrower sense the industrial and technical heritage of the twentieth century (Zeche Zollverein in Essen, Germany, the Varberg radio station in Grimeton, Sweden, the D. F. Wouda steam pumping station in the Netherlands). The Fagus-Werk (Alfeld) by Walter Gropius on the German tentative list for world cultural heritage also belongs to this special segment.

In contrast to the outstanding monuments of modern architecture and residential culture represented on the World Heritage List by famous artistic creations such as the Rietveld Schröderhuis by Gerrit Thomas Rietveld (Utrecht, Netherlands), the Tugendhat Villa by Ludwig Mies van der Rohe, (Brno, Czech Republic) or the Luis Barragán house and studio (Mexico City, Mexico), the proposed Berlin housing estates represent a socially oriented contribution for solving urban housing problems and providing flats for workers and the emerging middle classes. With respect to urban planning, the Berlin estates anticipate individual aspects of functional urban planning and International Style as they are represented by world heritage sites in Europe (the White City of Tel Aviv in Israel, Le Havre, the City Rebuilt in France) and South America (Brasilia in Brazil, Ciudad Universitaria in Caracas in Venezuela). In a completely different typology and time context, Le Corbusier’s high-rise residential Unités d’habitation in Marseille (1950), which appear on the tentative list of France and Switzerland, might be seen as an interesting illustration of post-war modern style and a more vertically-oriented counter-example.

The nominated Berlin housing estates continue in the tradition of the model settlements of the early industrial and early socialist age of the eighteenth and nineteenth centuries and the Garden City Movement as represented in the World Heritage List by utopian settlements such as New Lanark (Scotland) by Robert Owen or the philanthropic textile workers’ village of Saltaire (England). However, in contrast to these world heritage sites of industrial culture – which also include the company town of Crespi d’Adda in northern Italy – they are not model settlements in rural areas but city-scale solutions built in large series in the dense urban space of an industrial metropolis, and as such they have become characteristic for the twentieth century.

Monument conservation as appreciation of cultural heritage

Soon after the end of the second world war and liberation from Nazi rule, the housing estates of the 1920s met with high appreciation as monuments of modern architecture and urban development and also of publicly assisted housing. The large housing estates now being
proposed for entry in the World Heritage List were already acknowledged as important monuments of building and art history in the first post-war inventories of the soon divided city. The Siemensstadt Ring Estate, for instance, is included in the list of Bauwerke und Kunstdenkmäler von Berlin (Berlin buildings and art monuments) for the city and district of Charlottenburg (1961) and for the city and district of Spandau (1971). Parts of the estates were already legally protected and officially entered in the list of monuments prior to 1975, the European Monument Protection Year. Among them is the Siemensstadt section designed by Hans Scharoun and the central area of the Britz Horseshoe Estate (both entered in 1959) and the Weisse Stadt Estate in Reinickendorf (entered in 1971). The highly developed awareness of owners and residents and also of architects and politicians who identified with the achievements of the inter-war Modern style contributed decisively to ensuring that most of the estates were treated carefully even in the decades before they were legally protected, so that they have come down to us in a state of conservation which is truly rare.

In the 1970s series “Berlin und seine Bauten” (Berlin and its buildings), the Berlin Association of Architects and Engineers published an initial scientific inventory of the entire city covering 171 Berlin housing estates built between 1919 and 1945. This inventory provided the basis for protecting further estates in the western part of the city. The legal opportunities were expanded with the GDR Monument Conservation Act of 1975 (Denkmalpfl egegesetz) and the West Berlin Monument Protection Act of 1977 (Denkmalschutzgesetz), and these laws were used by curators on both sides of the Iron Curtain to protect the most important examples of publicly assisted housing built in the inter-war Berlin Modern style. As early as 1977, Gartenstadt Falkenberg (also known as the “paint-box estate”, or “Tuschkastensiedlung”) and Wohnstadt Carl Legien in the eastern part of the city were entered as monuments of supra-regional significance “to the culture and way of life of the working classes and strata”. In West Berlin, further parts of the Britz Horseshoe Estate (Neukölln) were added to the list of protected monuments in 1986. Since the fall of the Berlin wall and the adoption of the 1990 act standardising laws in the State of Berlin, and since the Gesamtberliner Denkmalschutzgesetz (monument protection act for the entire Berlin territory) came into force in 1995, all six of the nominated settlements have enjoyed equal protection as monument sites (entire estate, overall design), in all cases also including all green spaces and outdoor facilities or the parts of the estates that are protected as historic gardens.

Hardly any other city in Germany and probably only few in Europe have embarked upon new roads in monument conservation as early as Berlin or started to deal with the legacy of the twentieth century in such a focused manner. And hardly any other city has comparable experience in the field of legal and practical monument conservation of 1920s estates. In 1978, as a consequence of the European Monument Protection Year (1975) and in connection with preparations for the city’s 750th anniversary (1987), the West Berlin monument conservation authority launched four pilot projects to encourage a more comprehensive stock-taking and analysis of damage as well as to develop restoration and repair technologies suitable for preserving the 1920s estates. In cooperation with the housing associations that own or manage the estates, it produced comprehensive and detailed documentations for all important building elements and historic building materials and designs, which now form an indispensable basis for planning refurbishment measures and developing long-term monument conservation concepts.

Among the West Berlin model projects of the 1970/80s that became known far beyond Berlin as a result of publications, exhibitions and lectures at home and abroad are also three of the estates now being proposed for entry in the World Heritage List: the Britz Horseshoe Estate, the Siemensstadt Ring Estate and the Weisse Stadt Estate in Reinickendorf. As early as 1985, the German National Committee for Monument Conservation (Deutsches Nationalkomitee...
Für Denkmalschutz) and Gesamtverband gemeinnütziger Wohnungsunternehmen e. V. (a federation of non-profit housing companies) used the extensive Berlin experience as the basis for holding an inter-municipal conference and publishing a national report on monument conservation with regard to housing estates built in the 1920s. In 1990, after the border was opened, experts in monument conservation and the legal owners of the estates in the eastern part of the city (Gartenstadt Falkenberg and Wohnstadt Carl Legien) were able to fall back on this basis both with respect to methodology and in practice. Gradually and with the help of considerable public funding, the responsible housing cooperatives and housing companies restored East Berlin’s protected residential buildings and outdoor facilities to their appropriate historic and artistic state.

During the past twenty-five years, the Berlin authority for the conservation of historic buildings and gardens has established new standards for the appropriate conservation and restoration of modern-style housing estates and residential ensembles both in Germany and, in a dialogue with colleagues from other European countries, internationally. Landesdenkmalamt Berlin participated in the 2002 ICOMOS International Day for Monuments and Sites, which was dedicated to the topic of “Conserving Monuments of the 20th Century Heritage”, by offering guided tours and events presenting the inter-war estates built in the Berlin Modern style now nominated for entry in the World Heritage List. Berlin is one of the initiators of efforts to establish the ICOMOS International Scientific Committee on “20th Century Heritage”, where it is represented as a founding member by the Berlin state curator. Berlin offers a platform in the network of international monument contacts and European monument conservation cooperation efforts. Most recently, UNESCO’s so-called “Berlin Appeal” on periodic reporting on the implementation of the World Heritage Convention adopted in November 2005 by 75 representatives from 40 European countries attracted international attention for the German capital.

The selected six settlements are not only key representatives of modern urban development and architecture: they also fascinate with their almost unadulterated authenticity. Even today they are firmly anchored in the city’s cultural awareness and in great demand as attractive residential areas. Listing them as world heritage sites would mean enormous recognition and further impetus for the politicians, conservation authorities and other parties involved in their preservation. The relevant parties in Berlin are fully aware of the honour connected with entry in the World Heritage List and of the obligations arising from it.

Prof. Dr. Jörg Haspel
State Curator of Heritage Conservation
<table>
<thead>
<tr>
<th>No.</th>
<th>20th Century World Heritage (state 2005)</th>
<th>Year of Inscription</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Auschwitz Concentration Camp / Poland</td>
<td>1979</td>
</tr>
<tr>
<td>2.</td>
<td>Historic Centre of Warsaw (Reconstruction) / Poland</td>
<td>1980</td>
</tr>
<tr>
<td>4.</td>
<td>City of Brasilia / Brazil</td>
<td>1987</td>
</tr>
<tr>
<td>5.</td>
<td>Skogskyrkogården, Stockholm / Sweden</td>
<td>1994</td>
</tr>
<tr>
<td>6.</td>
<td>Bauhaus and its Sites in Weimar und Dessau / Germany</td>
<td>1996</td>
</tr>
<tr>
<td>7.</td>
<td>Hiroshima Peace Memorial (Genbaku Dome) / Japan</td>
<td>1996</td>
</tr>
<tr>
<td>8.</td>
<td>Wouda Steam Pumping Station, Lemmer / Netherlands</td>
<td>1998</td>
</tr>
<tr>
<td>10.</td>
<td>Rietveld Schröderhuis, Utrecht / Netherlands</td>
<td>2000</td>
</tr>
<tr>
<td>11.</td>
<td>Ciudad Universitaria de Caracas / Venezuela</td>
<td>2000</td>
</tr>
<tr>
<td>12.</td>
<td>Tugendhat-Villa, Brno / Czech Republic</td>
<td>2001</td>
</tr>
<tr>
<td>13.</td>
<td>Zollverein Coal Mine Industrial Complex, Essen / Germany</td>
<td>2001</td>
</tr>
<tr>
<td>14.</td>
<td>White City of Tel Aviv - the Modern Movement / Israel</td>
<td>2003</td>
</tr>
<tr>
<td>15.</td>
<td>Luis Barragán House and Studio, Mexico City / Mexico</td>
<td>2004</td>
</tr>
<tr>
<td>16.</td>
<td>Varberg Radio Station, Halland / Sweden</td>
<td>2004</td>
</tr>
<tr>
<td>17.</td>
<td>Le Havre, the City Rebuilt by Auguste Perret / France</td>
<td>2005</td>
</tr>
</tbody>
</table>
Fig. XII: 20th Century World Heritage (without Europe)

Fig. XIII: 20th Century World Heritage in Europe
## CONTENTS

1. IDENTIFICATION OF THE PROPERTY
   1. A Country
   1. B State, Province or Region
   1. C Name of Property
   1. D Geographical coordinates to the nearest second
   1. E Maps and Plans, showing the boundaries of the nominated property and buffer zone
   1. F Area of nominated property (ha.) and proposed buffer zone (ha.)

2. DESCRIPTION
   2. A Description of Property
   2. B History and Development

3. JUSTIFICATION FOR INSCRIPTION
   3. A Criteria under which inscription is proposed
   3. B Proposed Statement of Outstanding Universal Value
   3. C Comparative analysis
   3. D Integrity and/or Authenticity

4. STATE OF CONSERVATION AND FACTORS AFFECTING THE PROPERTY
   4. A Present state of conservation
   4. B Factors affecting the property
      (I) Development Pressures
      (II) Environmental pressures
      (III) Natural disasters and risk preparedness
      (IV) Visitor/tourism pressures
      (V) Number of inhabitants within the property and the buffer zone

5. PROTECTION AND MANAGEMENT OF THE PROPERTY
   5. a Ownership
   5. b Protective designation
   5. c Means of implementing protective measures
   5. d Existing plans related to municipality and region in which the proposed property is located
   5. e Property management plan or other management system
   5. f Sources and levels of finance
   5. g Sources of expertise and training in conservation and management techniques
   5. H Visitor facilities and statistics
   5. i Policies and programmes related to the presentation and promotion of the property
   5. j Staffing levels
6. MONITORING  
   6. A Key indicators for measuring state of conservation  
   6. B Administrative arrangements for monitoring property  
   6. C Results of previous reporting exercises  

7. DOCUMENTATION  
   7. A Photographs, slides, image inventory and authorization table and other audiovisual materials  
   7. B Texts relating to protective designation, copies of property management plans or documented management systems and extracts of other plans relevant to the property  
   7. C Form and date of most recent records or inventory of property  
   7. D Address where inventory, records and archives are held  
   7. E Bibliography  

8. CONTACT INFORMATION OF RESPONSIBLE AUTHORITIES  
   8. A Preparer  
   8. B Official Local Institution / Agency  
   8. C Other Local Institutions  
   8. D Official Web address  

9. SIGNATURE ON BEHALF OF THE STATE PARTY  

ATTACHMENT  
   Architect's biographies  
   Expert's review
1. IDENTIFICATION OF THE PROPERTY
1. A Country

The Federal Republic of Germany

Fig. 1: Central Europe with Germany
1. B State, Province or Region

The Federal State of Berlin

Fig. 2: Germany with Berlin
1. C Name of the Property

HOUSING ESTATES IN THE BERLIN MODERN STYLE

1 Gartenstadt Falkenberg
2 Siedlung Schillerpark
3 Großsiedlung Britz (Hufeisensiedlung)
4 Wohnstadt Carl Legien
5 Weiße Stadt
6 Großsiedlung Siemensstadt (Ringsiedlung)

Fig. 3: The nominated housing estates on Berlin territory
1. D  Geographical coordinates to the nearest second

Serial nomination table Id N° 1239

<table>
<thead>
<tr>
<th>ID-No.</th>
<th>Name of the area</th>
<th>District</th>
<th>Core Zone (ha.)</th>
<th>Buffer Zone (ha)</th>
<th>Coordinates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1239-001</td>
<td>Gartenstadt Falkenberg</td>
<td>Treptow-Köpenick of Berlin</td>
<td>4,4 ha</td>
<td>6,7 ha</td>
<td>terrestrial longitude East 13° 34' 00&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>terrestrial latitude North 52° 24' 39&quot;</td>
</tr>
<tr>
<td>1239-002</td>
<td>Siedlung Schillerpark</td>
<td>Mitte of Berlin</td>
<td>4,6 ha</td>
<td>31,9 ha</td>
<td>terrestrial longitude East 13° 20' 56&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>terrestrial latitude North 52° 33' 34&quot;</td>
</tr>
<tr>
<td>1239-003</td>
<td>Großsiedlung Britz (Hufeisensiedlung)</td>
<td>Neukölln of Berlin</td>
<td>37,1 ha</td>
<td>73,1 ha</td>
<td>terrestrial longitude East 13° 27' 00&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>terrestrial latitude North 52° 26' 54&quot;</td>
</tr>
<tr>
<td>1239-004</td>
<td>Wohnstadt Carl Legien</td>
<td>Pankow of Berlin</td>
<td>8,4 ha</td>
<td>25,5 ha</td>
<td>terrestrial longitude East 13° 26' 01&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>terrestrial latitude North 52° 32' 47&quot;</td>
</tr>
<tr>
<td>1239-005</td>
<td>Weiße Stadt</td>
<td>Reinickendorf of Berlin</td>
<td>14,3 ha</td>
<td>41,1 ha</td>
<td>terrestrial longitude East 13° 21' 03&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>terrestrial latitude North 52° 34' 10&quot;</td>
</tr>
<tr>
<td>1239-006</td>
<td>Großsiedlung Siemensstadt (Ringsiedlung)</td>
<td>Charlottenburg-Wilsersdorf of Berlin / Spandau of Berlin</td>
<td>19,3 ha</td>
<td>46,7 ha</td>
<td>terrestrial longitude East 13° 16' 39&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>terrestrial latitude North 52° 32' 22&quot;</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td></td>
<td>88,1 ha</td>
<td>225,0 ha</td>
<td></td>
</tr>
</tbody>
</table>

1. E  Maps and Plans, showing the boundaries of the nominated property and buffer zone

List of the maps

<table>
<thead>
<tr>
<th>ID-No.</th>
<th>Name of the area</th>
<th>Contents</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1239-001</td>
<td>Gartenstadt Falkenberg</td>
<td>site plan</td>
<td>1 : 5.000</td>
</tr>
<tr>
<td>1239-001</td>
<td>Gartenstadt Falkenberg</td>
<td>aerial view</td>
<td>1 : 5.000</td>
</tr>
<tr>
<td>1239-002</td>
<td>Siedlung Schillerpark</td>
<td>site plan</td>
<td>1 : 5.000</td>
</tr>
<tr>
<td>1239-002</td>
<td>Siedlung Schillerpark</td>
<td>aerial view</td>
<td>1 : 5.000</td>
</tr>
<tr>
<td>1239-003</td>
<td>Großsiedlung Britz (Hufeisensiedlung)</td>
<td>site plan</td>
<td>1 : 5.000</td>
</tr>
<tr>
<td>1239-003</td>
<td>Großsiedlung Britz (Hufeisensiedlung)</td>
<td>aerial view</td>
<td>1 : 5.000</td>
</tr>
<tr>
<td>1239-004</td>
<td>Wohnstadt Carl Legien</td>
<td>site plan</td>
<td>1 : 5.000</td>
</tr>
<tr>
<td>1239-004</td>
<td>Wohnstadt Carl Legien</td>
<td>aerial view</td>
<td>1 : 5.000</td>
</tr>
<tr>
<td>1239-005</td>
<td>Weiße Stadt</td>
<td>site plan</td>
<td>1 : 5.000</td>
</tr>
<tr>
<td>1239-005</td>
<td>Weiße Stadt</td>
<td>aerial view</td>
<td>1 : 5.000</td>
</tr>
<tr>
<td>1239-006</td>
<td>Großsiedlung Siemensstadt (Ringsiedlung)</td>
<td>site plan</td>
<td>1 : 5.000</td>
</tr>
<tr>
<td>1239-006</td>
<td>Großsiedlung Siemensstadt (Ringsiedlung)</td>
<td>aerial view</td>
<td>1 : 5.000</td>
</tr>
</tbody>
</table>
GARTENSTADT FALKENBERG

Gartenstadt Falkenberg is situated in the district of Treptow-Köpenick of Berlin, borough of Bohnsdorf

Akazienhof 1–26
Am Falkenberg 118–120
Gartenstadtweg 15–66, 68/72, 74–99

The geographical coordinates according to WGS 84 (GRS 80) are:
1. terrestrial longitude East 13° 34' 00"
2. terrestrial latitude North 52° 24' 39"
Fig. 5: Gartenstadt Falkenberg, nominated area and buffer zone, aerial view, scale 1:5,000
Fig. 6: Gartenstadt Falkenberg, nominated area and buffer zone, scale 1:5,000
The Siedlung Schillerpark is situated in the district of Mitte of Berlin, borough of Wedding

Barfußstraße 23/31
Bristolstraße 1/17, 19/23, 25/27
Corker Straße 3/7, 19/29, 33/35
Dubliner Straße 62/66
Oxforder Straße 3–12, 14
Windsorstraße 3–11

The geographical coordinates according to WGS 84 (GRS 80) are:
1. terrestrial longitude East 13° 20' 56"
2. terrestrial latitude North 52° 33' 34"
1. IDENTIFICATION OF THE PROPERTY

Fig. 7: Siedlung Schillerpark, Brandstraße, 2005

AERIAL VIEW
Fig. 8: Siedlung Schillerpark, nominated area and buffer zone, aerial view, scale 1:5,000.
Fig. 9: Siedlung Schillerpark, nominated area and buffer zone, scale 1:5000
The Großsiedlung Britz (Hufeisensiedlung) is situated in the district of Neukölln of Berlin, borough of Britz.

Buschkrugallee 177/247,
Dorchlauchtingstraße 1–10, 12/16, 18–50
Fritz-Reuter-Allee 2/72, 78/120
Gielower Straße 41–50
Grüner Weg 2/34
Hüsung 1–38
Jochen-Nüßler-Straße 1–45
Liningstraße 1–83, 85/87
Lowise-Reuter-Ring 1/47
Miningstraße 1–36, 38–86, 87–102
Onkel-Bräsig-Straße 1/11, 12–74, 79–143
Parchimer Allee 7, 9–30, 32, 66–70, 72–91, 92/104
Paster-Behrens-Straße 1–46, 48, 53/77
Stavenhagener Straße 4/32
Talberger Straße 2/12R

The geographical coordinates according to WGS 84 (GRS 80) are:
1. terrestrial longitude East 13° 27' 00”
2. terrestrial latitude North 52° 26' 54”
1. Identification of the Property

Fig. 10: Großsiedlung Britz, aerial photograph with horseshoe and Häusung, 1990s
Fig. 11: Großsiedlung Britz, nominated area and buffer zone, aerial view, scale 1:5,000

GROSSEDUNG BRITZ (HUFEISENSIEDLUNG)
Fig. 12: Großsiedlung Britz, nominated area and buffer zone, scale 1:5,000
Wohnstadt Carl Legien is situated in the district of Pankow of Berlin, borough of Prenzlauer Berg.

Erich-Weinert-Straße 98/100, 101
Georg-Blank-Straße 1/5
Gubitzstraße 32–46
Küselstraße 4/6, 16/18, 28/30, 34
Lindenhoekweg 2/6, 12/16
Sodkistraße 1–34, 36/46
Sültstraße 11–26, 30/44
Trachtenbrodtstraße 2–34

The geographical coordinates according to WGS 84 (GRS 80) are:
1. terrestrial longitude East 13° 26’ 01”
2. terrestrial latitude North 52° 32’ 47”
1. Identification of the Property

Aerial View

Fig. 13: Wohnstadt Carl Legien, Erich-Weißen-Straße, 2005
WOHNSTADT CARL LEGIEN

Scale / Maßstab: 1:5,000
Source Plan / Kartengrundlage:
Bildflug Berlin - August 2004

Monument / Denkmal
Area of nominated property / Nominierungsgebiet
Buffer Zone / Pufferzone

Surface / Fläche:
- Monument: 8.4 ha
- Buffer Zone: 25.5 ha
- Total / Gesamt: 33.9 ha

Fig. 14: Wohnstadt Carl Legien, nominated area and buffer zone, scale 1:5,000 aerial view, scale 1:5,000
Wohnstadt Carl Legien, nominated area and buffer zone, scale 1:5.000.
Weiße Stadt is situated in the district of Reinickendorf of Berlin, borough of Reinickendorf.

Aroser Allee 116/118, 121–153B, 154, 155/193
Baseler Straße 55/57
Bieler Straße 1/9
Emmentaler Straße 2–11, 13/37, 40–57
Genfer Straße 45/119
Gotthardstraße 4/8
Romanshorner Weg 54/82, 61/79, 96/212
Schillerring 3/31
Sankt-Galler-Straße 5

The geographical coordinates according to WGS 84 (GRS 80) are:
1. terrestrial longitude East 13° 21' 03"
2. terrestrial latitude North 52° 34' 10"
3. IDENTIFICATION OF THE PROPERTY

Fig. 16: Weiße Stadt, gate house Aroser Allee/Emmentaler Straße, 2005

AERIAL VIEW
Fig. 18: Weiße Stadt, nominated area and buffer zone, scale 1:5,000

Source Plan / Kartengrundlage:
Landeskartenwerk K5 - Oktober 2003

Scale / Maßstab: 1:5,000

WEISSE STADT

Monument / Baudenkmäl
Listed Garden / Gartendenkmal
Area of nominated property / Nominiertungsgebiet
Buffer Zone / Pufferzone

Surface / Fläche:
Monument: 14,3 ha
Listed Garden: 41,1 ha
Total / Gesamt: 55,4 ha
The Großsiedlung Siemensstadt is situated in the district of Charlottenburg-Wilmersdorf of Berlin, borough of Charlottenburg and in the district of Spandau of Berlin, borough of Siemensstadt.

Geißlerpfad 1, 3–11, 13–29
Goebelstraße 1/9, 2/122, 11, 15, 19/25, 29, 35, 39, 45, 49, 51, 55, 61, 63, 69, 71, 75, 79, 83, 87, 91, 95, 99, 103, 107/113
Heckerdamm 283/299
Jungfernheideweg 1, 3–15, 16/20, 21–31, 33/45
Mäckeritzstraße 6/22

The geographical coordinates according to WGS 84 (GRS 80) are:
1. terrestrial longitude East 13° 16’ 39’’
2. terrestrial latitude North 52° 32’ 22’’
Fig. 19: Großsiedlung Siemensstadt, part designed by Hans Scharoun at Jungfernheideweg, 2005
Fig. 20: Großsiedlung Siemensstadt, nominated area and buffer zone, aerial view, scale 1:5,000

GROSSESIEDLUNG SIEMENSSTADT (RINGSIEDLUNG)
Fig. 21: Großsiedlung Siemensstadt, nominated area and buffer zone, scale 1:5,000
### Housing Estates in the Berlin Modern Style • Nomination for Inscription on the UNESCO World Heritage List

#### Gartenstadt Falkenberg
- Area of nominated property: 4.4 ha
- Buffer zone: 6.7 ha
- Total: 11.1 ha

#### Wohnstadt Carl Legien
- Area of nominated property: 8.4 ha
- Buffer zone: 25.5 ha
- Total: 33.9 ha

#### Siedlung Schillerpark
- Area of nominated property: 4.6 ha
- Buffer zone: 31.9 ha
- Total: 36.5 ha

#### Weiße Stadt
- Area of nominated property: 14.3 ha
- Buffer zone: 41.1 ha
- Total: 55.4 ha

#### Großsiedlung Britz (Hufeisensiedlung)
- Area of nominated property: 37.1 ha
- Buffer zone: 73.1 ha
- Total: 110.2 ha

#### Großsiedlung Siemensstadt (Ringsiedlung)
- Area of nominated property: 19.3 ha
- Buffer zone: 46.7 ha
- Total: 66.0 ha
SIELUNG SCHILLERPAK
Action plan for the preservation and restoration of the historic garden
2. DESCRIPTION
2. A Description of Property

The reformed housing development of Berlin stands out from among that of other metropolises of the early 20th century by its high quality of architecture, an abundance of experimental forms of social housing and a large amount of buildings. These projects provided on a large scale healthy, hygienic and humane living conditions for the low income groups and demonstrated democratic housing development as it was not continued before Germany's social housing programmes after 1945.

The builders of the Berlin garden towns and large housing estates found the land they needed for implementing the housing policy in the intended quality in the rural outer districts of Berlin. It is quite obvious that the intense development at the margin of the city required the existence of the city itself with its economy and its strong infrastructure – the new housing estates were situated near the stations of the tightly knit and further expanding Berlin commuter transport network. Gartenstadt Falkenberg at Alt-Glienicke, which was built shortly before the First World War and also the estates which were built later, i.e. Britz (at Neukölln), Weiße Stadt (at Reinickendorf) and Siemensstadt (at Charlottenburg and Spandau) were erected on the territory of former suburbs of Berlin which were merged with the core of the city thus forming Greater Berlin only in 1920. Only the estate at Schillerpark (district of Wedding) and Wohnstadt Carl Legien (district of Prenzlauer Berg) are located at the margin of the city centre on building ground which was subdivided into parcels already in 1918. The growing city has meanwhile reached or even overtaken all of these settlements and they are now islands of well-designed living within a city environment.

All nominated estates were built by cooperatives and non-profit organisations which wanted to provide humane living conditions. All of these estates are based on a holistic settlement ground plan which reflects the respective model of housing reform of each of their developers. The closed tenements with densely packed structures are substituted by concepts of open housing aiming at creating garden towns and cities. These new concepts represent a radical break with urban development of the 19th century with its corridor-like streets and reserved spaces for squares.

The most important urban development designer was Bruno Taut. His design of Gartenstadt Falkenberg focuses on the modest single-family house built as row house or the double house with a garden for supplying food for the inhabitants. Where as Taut after the First World War uses again and re-defines elements of garden town design in a mixed structure of single-family and multi-storey buildings the other estates – Schillerpark, Carl Legien, Weiße Stadt and Siemensstadt represent experiments with social housing in modern city mass residential development.

The ideal was to create housing for all income levels with equal standard and varying sizes, with dedicated bathrooms and kitchens and generous loggias and balconies which faced the sun. This intention was complemented by the desire to find a modern architecture which reflects the ground plan structure and treats both front and rear façades without hierarchy and to embed all this in communal functional green spaces. These housing estates are dominated by multi-storied blocks of flats arranged in open blocks or ribbons with flat sizes of usually 2 or 2 1/2 rooms.

Another new aspect was that of the outdoor facilities which became an inherent part of the design of the estates. The green spaces are very important in creating the friendly impression which makes us feel even today that the developers of these estates were not aiming only at creating a new social and spatial order but that they wanted to create beautiful facilities and make the inhabitants of these areas happy. Already for designing the housing estate at Falkenberg Taut had invited Ludwig Lesser for designing the outdoor facilities and private gardens. Lesser had a very good reputation and was committed to social improvement. According to Taut's understanding the inhabitants of the area should be offered common areas – he called them “Außenwohnräume” (outdoor living spaces) which would invite them to come outside to enjoy sunlight and fresh air. With these spaces he wanted to enhance the use value of the flats.

The spacious garden grounds which Lesser designed later for the courtyards of Weiße Stadt are mainly sup-
posed to satisfy the private needs of the inhabitants for playing and staying outdoors. Leberecht Migge’s design idea for integrating the often quoted glacial pond in the centre of the horseshoe combines the motifs of a flowering formal garden with that of a virgin landscape. This design makes a major contribution to the symbol-like impact of the core of the Britz housing estate on the entire housing estate movement. At Siemensstadt master planner Hans Scharoun and the garden artist Leberecht Migge created an urban landscape whose wide lawns and old trees give it the atmosphere of an open “park town”.

The individual housing estates

**Gartenstadt Falkenberg**

Gartenstadt Falkenberg built between 1913 and 1916 according to a design by Bruno Taut is located in the southeast of Berlin near the city boundary. Its limits are the street Am Falkenberg in the North, Bruno-Taut-Straße in the East and the thoroughfare B 96a in the West. Not far from it in the North passes the line of the former Berlin-Görlitz railway (opened in 1867) with the commuter station of Grünau. Because of its sensational use of colours people started to call the garden town Tuschkastensiedlung (paint box housing estate) soon after its completion.

The garden town is located in an attractive landscape near the Grünau forest and the river Dahme. Still today this landscape is characterised by lively glacial shapes. The hill Falkenberg (25 m high) is located at the transition from the lowland of the rivers Dahme and Spree to the highland of Teltow. At the northern slope of this hill “Gemeinnützige Baugenossenschaft Gartenvorstadt Groß-Berlin eGmbH” (Non-profit building cooperative garden suburb Greater Berlin registered limited liability company) was able to complete two phases of a larger plan for housing estate development before they had to terminate the works due to the war. The housing estates North and East of it are amorphous suburbs which are characterised by commercial and industrial buildings as well as villa-like residential buildings from the late 19th century. During the 1970s suburban residential development advanced up to the gardens of the garden town.

The housing estate was erected in two phases and the houses of each phase form open groups around the two residential streets “Am Akazienhof” (acacia yard) and “Gartenstadtweg” which branch off in northern direction of the street Am Falkenberg. The first development phase began in 1913 and produced the intimate courtyard “Akazienhof” named after the double row of acacias planted in it. It has a total of 34 residential units. 23 of them were erected as single-family terraced houses in several groups. Eight were built in multiple dwellings, two in a double house and one in a single-family house. Two separate villa-like houses frame the narrow access road to the courtyard: one is the house “Haus Otto” (Am Falkenberg 119) designed by Heinrich Tessenow which is his only contribution to the housing estate and the other one is the double house Am Falkenberg 120 by Bruno Taut. Another double house by Taut – Am Falkenberg 118 – is also located here. It was completed in 1916 and is the only completed building of the third phase.
Akazienhof
At Akazienhof groups of row houses in varying design are facing each other: along the western side stand two groups of five single-storey small houses each in paratactical sequence under one roof. At the time when they were built this was the most economical design. The very curved eaves cornice and the broad jamb wall window – one per unit – are the only plastic motifs. At the eastern side are located two double-storied groups of houses with a total of ten units arranged in pairs. Their paired entrances are framed by white painted pergolas.

The spatial impression on Akazienhof is determined by the subtle asymmetry of the composition. The house at the head of the yard which is tripartite and axi-symmetric is shifted out of the spatial axis. The eastern row of houses ends with a somewhat projecting tenement house and the western row is interrupted by a far retreating quadrimonium.

The expressive colourfulness of the houses surprises again and again. The colours which have regained their great depth and brightness with the most recent restoration are still unusual and interesting as colours for buildings. This applies in particular for the deep brownish red and the bright ultramarine blue which has become famous as “Taut blue” and appears again and again in his later designs. It is certainly not by chance that Taut who as a young man found it hard to decide whether he wanted to become a painter or an architect used colours at Falkenberg which he had used in his early pastel drawings. The blue of the sky in his landscape paintings returns in the blue faces of the Falkenberg row houses. Here at Falkenberg he used the colours for entire faces. It covers entire walls as if they were panel paintings and the white painted eaves cornices might well be the paintings’ frames.

The sequence of the colours in the house units expresses the compositional principles of sequencing and mirroring and stresses the harmonic asymmetry of the place: white for the tripartite house at the head, yellow and brown for the double-storied houses and green, yellow, blue and red alternating for the rows and pairs. This creates a colour composition of individual housing units which still stand around the yard in solidarity – expressing the sense of solidarity which was the basis of the Falkenberg housing cooperative.

Gartenstadtweg
The second phase built in 1914 and 1915 includes twelve unitised groups of houses which are placed along both sides of Gartenstadtweg rising towards the plateau of Falkenberg. Taut used here the hilly landscape for modelling the roadside environment to turn it into an attractively designed housing estate. The street is designed as a defile. Along both of its sides it has landscaped slopes with multiple terraces which are formed by walls, stairs and low plants and constitute the front gardens of the rows of houses which are retreated from the road.
As at Akazienhof these houses are a mix of double-storied multiple dwellings and single-storied as well as rows of double-storied single-family houses. 54 of the total 94 apartments of varying sizes (ranging from single-room apartments with a chamber to five-room apartments) are located in small houses. Four tenement house units contain a total of 40 flats. Two multiple dwellings on the eastern side of the street start the housing estate section at the beginning of Gartenstadtweg. They are arranged in U- and L-shaped groups and form the complementary pole to the rows of small houses on the opposing western side. The rows at the western side retreat from the road building line shortly before they reach the summit of the hill where they form a wider space. Here, at the bend of the street and diagonally opposed are located the other two multiple dwellings. Where flat ground begins they are followed on both sides by the last two rows of small houses which are placed near the road again. These houses form a somewhat sudden end of the housing estate – originally more houses were planned to follow them.

At Gartenstadtweg Taut’s colouring becomes even bolder and more unconventional. Here he combined a total of fourteen different shades of colours. In doing so he arranged colour spaces which coincide with the housing estate spaces. At the beginning of the street the housing estate’s image is determined by light shades – yellow, ochre, red brown, bright orange and white. The colours of the row houses alternate from house to house. The multiple dwellings have one principal colour and sometimes very lively contrasting ornaments. The bright blue head building at the end of the first row of houses constitutes the joint with the second development phase.

In the spatially widened central section two rather unspectacular light grey houses are opposed by two very striking groups of row houses each with eight units whose units are alternatively black and red. The last section at the street with the two single-family houses and the angular group of tenement houses is painted white, black, dark grey. Here at the summit of the hill colouring culminates in the multiple dwelling (Gartenstadtweg 84/86) whose completely black façade is in stark contrast to the white windows and shutters, red window frames, red-white parapet fields and the red roofing with the white chimneys.

Actually all of the coloured walls at Falkenberg are given their full brightness by the contrasting colours of the windows and shutters, cornices, verandas and wooden balcony parapets. The colourful patterns on the walls of the multiple dwellings are recourses to the ornaments which actually have been absorbed in the coloured faces. The fields of colour which cover the front façades in chess board patterns and the clearly delimited geometric motifs are as far away from the usual architectural ornament as the colour is from the colours which are usually used for buildings. As a quasi autonomous decoration they stress the visual impact of the façades.
What all types of houses have in common is that they have an individual colouring and that the same architectural details were used: lively plaster in cross-wise application, red gable roofs made of single-lap crown tiles and with always the same pitch, high rectangular transom windows, white painted chimneys and wooden elements – shutters, pergolas at the entrances, trellises, trellises for use and others only for decoration all of which stress the garden town character. They belong to the reasons why the garden town of Falkenberg is praised for its harmony of architecture and urban development.

Outdoor facilities
The chief garden architect Ludwig Lesser made an important contribution to the both uniform and lively appearance of the housing estate. The cooperative had awarded him the contract as designing and consulting garden architect. Each apartment has a garden. The gardens’ sizes vary between 135 and 600 sqm and were originally meant to be used for growing part of the inhabitants’ food. For the regular row house gardens Ludwig Lesser had established “lists of pre-selected plants” for giving them a uniform appearance.

The green alleyways which are typical for the housing estate serve the gardens with the small standardised stables for breeding small animals.

Lesser planned to carry out the planting at Akazienhof and Gartenstadtweg in selected sections for stressing Taut’s intentions of urban development. In the yard of Akazienhof were planted low acacias with crowns cut into ball shapes. (Actually they are Robinia pseudoacacia but in historic descriptions they are called acacias.) It reminds of village greens as they can be found in villages of the region of Brandenburg – much more because of its garden-like design than is rectangular shape.

Taut’s garden town concept of the second development phase, i.e. Gartenstadtweg at the slope of the hill Falkenberg, cleverly integrates the front gardens of the single-family houses into the road space. The staggering, the projecting and retreating fronts also of the multiple dwellings produce front gardens with varying depths which widen the road space. At the central section with the deep front gardens and the section in front of the terraced gardens no trees were planted in the street to avoid that the image of the garden town becomes less clear. The difference in elevation especially in the central more inclined part of the road has been used for creating terraced gardens. Their varied planting in rock garden style, the pergolas at the front doors and the many trellises with fruit trees and climbers at the façades in different colours contribute to the picturesque image of the street. The front gardens and the back gardens have uniform fencing of wood, wire and hedges.

Siedlung Schillerpark
In the North of the city in the sub-district of Wedding which is part of the district of Mitte (centre) is located the housing estate Schillerpark. It has been built between 1924 and 1930 according to designs by Bruno Taut for “Berliner Spar- und Bauverein” (Berlin savings and building association). It was named after the large Schillerpark which is located at its south-western border formed by Bristolstraße. This park was the first so-called public park with playgrounds and recreational areas built by the community in 1909-1913. With allotments gardens in the North and the St. John Evangelist churchyard in the East the housing estate is separated from the surrounding residential quarters as if it was an autonomous block in the city’s network. The housing estate area which is cut into three parts by Windsheimer and Oxforder Straße is surrounded by Bristolstraße, Dubliner Straße, Corker Straße and Barfußstraße.

The two blocks between Dubliner and Oxforder Straße which belong to the first two development phases erected between 1924 and 1928 show the novel urban development and residential concept most clearly. Without following the block line precisely Taut places three-storey ribbon-buildings with East-West and North-South orientation around quiet garden courts to make them appear as open block boundary buildings. The staircases are located at the North or respectively at the Eastern side so that some of them are accessible from the street and the others from the garden courts. This means that the large garden courts must also be publicly accessible. For this
purpose passages have been provided at the extreme ends of the ribbons. They are bordered by clinker bricks and can be closed with iron-barred gates. Even when the gates are open the ensembles give an impression of spatial and social self-containedness in the sense of a cooperative housing estate community.

The semi-open development does not only support the integration of residential and open space as desired by Taut. It is also the first test for Taut’s principle of “outdoor living space” in a multi-storied environment. Even the adjacent Schillerpark is involved: at one of the main entrances to the park and along Oxforder Straße Taut created a wide green corridor with a double row of trees which crosses the housing estate and thus connects the park with the semi-public green spaces and the churchyard in the Northeast.

Taut’s urban development concept is a reference to the contemporary Dutch architecture which he got to know during a study trip in the early 1920s. His spatial concept has been influenced by the housing estate buildings designed by Johannes Pieter Oud. The architecture with its red brick walls, the flat roofs and the plastic shapes of the façades with loggias and balconies reflects in particular the Amsterdam school with its traditional, strong brick buildings.

As he had “seen there at new concrete houses in Amsterdam and Rotterdam he combined at Schillerpark dark red brick with horizontal subdivided light plaster areas between individual groups of windows.” (Kurt Junghanns, Bruno Taut 1880–1933, Berlin 1970, p. 64). This was the first time that Taut used flat mono-pitch roofs with jambs for creating low attics with washhouses and rooms for drying laundry and parts of the façades of these attics were plastered and got a colour which differed from that of the rest of the façade. In the buildings of the first development phase Taut placed the jamb windows – initially in horizontal shapes – above the structural axes of the buildings. In the second and third development phase they are square and appear along the entire front in an uninterrupted line. They are a very effective design elements providing structure and grouping the house units which are arranged in specular symmetry. In other designs which he made later in his life Taut used this idea again.

Especially the rows are reminders of the Dutch model. They were built first (1924–26) and show an unusual plastic and contrasting style with their many projections and retreats and the lively alternation between loggias and balconies. Taut managed to harmonise unusual expressionist details like the reinforced concrete pillars at the loggias whose tipped attachments almost reach the eaves with the cubic strictness of neues bauen. The façade structure has been developed consistently from the functional design of the apartments whose loggias and balconies are orientated towards the sun, i.e. Southeast or Southwest. The particular depth of the façade relief results from the ground plan idea. Taut designed a tripartite arrangement. All the windows of the smaller flat in the
middle face towards the sun and together with its loggia it projects a bit from the building line. Narrow windows in the flanks of the projecting part were supposed to provide for a kind of cross-ventilation.

As from 1925 the guidelines of the housing welfare society no longer allowed tripartite houses with more than one storey. Already in the second development phase which was completed in 1928 we find only double-houses with paired loggias. The angular block at Oxforder Straße 3–11/Corker Straße is an exception. With its design it creates a seamless connection with the buildings of the second phase.

At the end of the 20s the development of modern architecture reached everywhere in Europe a functional and occasionally almost minimalist style. The latter is represented in particular by the buildings designed by Otto Häsl er at Celle. The subsequent development phases at the Schillerpark housing estate reflect this development by a simplification of the designs which is also the result of growing economic restrictions. For preserving a coherent overall appearance Taut continued using dark red bricks for the façades also in the third phase (1929–30) but he stopped using plaster structures and distinguished jamb zones. Only the wide windows are highlighted by frames of large dark violet bricks and the slightly projecting loggias with unpainted parapets of architectural concrete. The houses in the uncompleted block between Barfusstraße and Oxforder Straße thus appear more functional but also more solid and cubic and acquire a plastic heaviness of their own.

The additional houses were designed by Hans Hoff man, company architect of the cooperative. They completed the south-eastern block – development phase III – in 1954 in harmony with Taut’s concept and Hoffmann erected three rows of houses thus densifying the use of the very wide space between the blocks. The four additional buildings at the margin of the block complete its regular quadrangular shape. Hoffmann adapted the contours – three stories with jamb – and materials – plaster and partially brick – to the respective adjacent houses by Taut to such a degree that nowhere occurs a break in the design. Hoffmann continued Taut’s concept on the same high level of design using the architectural style of the 50s. The building façades facing the sun are executed transparently as storey-high window walls with uninterrupted lines of balconies and the flats on ground floor level have private gardens with terraces. Thus he created the link with outdoor living space which also been so important for Taut.

The three rows inside the block are based on a similar concept but they have four storeys and no jams. Unfortunately heat insulation which was added in the early 1980s has very much changed their appearance. They are located in the middle of the green space of the block which has been designed by the garden architect Walter Rossow.

Outdoor facilities

Neues bauen with its semi-public structures at the margins of the blocks required also a clearly structured functional design of the outdoor spaces. Here the design is probably based on design requirements posed by Bruno Taut. The two enclosed courtyards between Dubliner and Oxforder Straße enjoy a particular garden design. Here the entire housing estate even with its front gardens obviously influences the surrounding street and green spaces and is integrated in them. Since the flats are orientated towards the sun the staircases or respectively the loggias and balconies are alternatingly facing the street or the yard. Therefore access had to be provided to the spaces inside the blocks. Here, edge courses of red brown clinker are framing paths along the building fronts. These paths divide the yards into two areas of different sizes. The larger space with more or less rectangular shape is a lowered lawn with seams of trees along the longitudinal sides. The remaining eastern space provides children’s playgrounds with sand-pits. This creates the architectural spatial structure and also the green “outdoor living spaces” which the tenants enjoy in their loggias, and on balconies. This is supported by the trees along the roads, i.e. the whitebeams at Windsor Straße and the original rows of pink hawthorns (now birches) at the wide green...
band at Oxforder Straße. They also connect Schillerpark with the clearly structured green spaces among and around the residential buildings.

Walter Rossow has designed the green spaces at the post-war buildings by Hans Hoffmann which complete Taut's third phase which had not been completed before. They are a combination of tenants' gardens and lawns with irregularly placed trees (mainly birches). The tenants' gardens make an exclusively private impression and they have been designed as recreational gardens, not as kitchen gardens. They were handed over with initial greenery in place. Hoffmann's building concept and Rossow's outdoor design are mutually related. Architecture and in particular the design of the flats and the positioning of the buildings interact with the outdoor spaces and alignment of the paths.

Groβsiedlung Britz (Hufeisensiedlung)
At the margin of Berlin, far away from the actual core of the tenement house city, on unused land of the former suburbs were built the large housing estates of the Weimar Republic. Among them is the Groß-Siedlung Britz in the Southeast of the city. It was erected on the land of the former manor of Britz in six phases lasting altogether from 1925 until 1930.

Already while it was erected the housing estate was named after the striking horseshoe shape of its centre. It comprises 1963 housing units which were built on the basis of designs by Bruno Taut and Martin Wagner. The "Gemeinnützige Heimstätten-Spar- und Bau-AG." (Non-profit housing savings and building shareholding company) was the client for the erecting of the large housing estate for approximately 5000 people which is delimited in the North by the acacia grove along Blaschkoallee. In the West its border is formed by the row houses along Onkel-Bräsig-Straße. In the East the North-South-lines of Fritz-Reuter-Allee and Buschkrugallee touch it and in the South the buildings of the sixth and last phase reach Talberger Straße. Opposite, on the other side of Fritz-Reuter-Allee is located the so-called "Eierteichsiedlung". It was erected at the same time according to designs by the architects Engelmann & Fangmeyer for DeGeWo (Deutsche Gesellschaft zur Förderung des Wohnungsbaus). This estate belongs to the same type but its expressionist decoration is of a more conservative style. The single-family houses and multiple dwellings of the six phases of the "Hufeisensiedlung" occupy more than 29 hectares in the district of Neukölln at the northern margin of the sub-district of Britz.

Taut had been ordered to combine multiple dwellings with single-family row houses which resulted in him creating a particular quality of urban development. He reacted to the topography and the natural space and he integrated garden town elements like small houses and tenants' gardens as well as common functional and event
spaces into social housing of the 20s, thus creating a completely novel housing estate landscape. The garden architect Leberecht Migge designed the private and public green spaces and areas. The works were executed according to plans by Ottokar Wagler, chief garden officer of Neukölln, however, these plans were occasionally changed while during the execution. From Migge’s design Wagler took over the shape of the pond and the alignment of the surrounding paths. The utilisation concept for the interior space of the horseshoe was altered.

The horseshoe

The integration of architecture and topography appears most clearly in the symbol of the housing estate: the horseshoe. Taut created a 350 m long three-storey horseshoe-shaped row of buildings around a depression with a pond in the centre of the area. The row consists of 25 houses of the same type and forms a large common green space. According to the typology of urban development the horseshoe is nothing but an original crossover between block margin and ribbon since the structure is just a 360 meter long ribbon which has been bent into the shape of a horseshoe. The residential rooms with loggias which all have the same ground plan are thus orientated towards the South, West or North respectively. All the entrances are at the external side of the horseshoe. In the West follows another symbolic spatial arrangement – a diamond shaped courtyard called Hü sung surrounded by rows of single-family houses. “De Hü sung” was the landlords permission for housing estate which had to be acquired by farm hands and day-labourers. Both shapes share an axis and together they form the central motifs of the first two development phases of the estate.

In seemingly free non-geometric composition Taut placed streets and squares around the horseshoe and the Hü sung. These were supposed to function as external residential spaces, i.e. “outdoor living spaces”. Narrow residential streets with rows of low single-family houses start at the horseshoe and point North and South. To these houses belong band-shaped tenants’ gardens. Taut placed each row of houses into a finely structured system of shifted building lines, asymmetric positions and gaps which can hardly be perceived at the first glance. Here he proved quite masterly that the restriction to two types of houses for 472 single-family houses need not necessarily lead to monotonous repetition. Each street has a character of its own created by projecting and retreating groups of houses or head buildings which widen or narrow the space.

Colour is used as an element of design and for providing structure at the Britz estate even more than at Falkenberg. The uniform use of white and blue in the house units along the horseshoe stress its closedness. On the inside only the internal walls of the loggias are blue whereas on the outside blue colour has been used for jambs and staircases. For the surrounding single-family row houses Taut abstained from using a uniform colour for each block. By means of differentiated colouring using bright red, yellow, white or blue integrally coloured stippling (sandfloat finish) he makes urban and spatial correlations optically perceivable. Each row or group of houses got its own colour, each street its own spatial colour identity.

On three sides three-storey flat-roofed blocks of flats were erected like screens or a town wall around the row houses with their steep-pitched roofs and gardens. This is a fundamental concept of urban development which applies reformist housing ideas from before the First World War which resulted from the urban development contest of Greater Berlin of 1910.

The “Red Front”

With a provoking gesture of delimitation Taut opposed the traditionalist DeGeWo-estate which was built at the same time according to designs by Engelmann &
Fangmeyer. This gesture consists of two long rows of thirty equal three-storied house units whose tower-like projecting staircases literally remind of military architecture. The two blocks with their blood-red plaster, called “Red Front” or “Chinese Wall” remind us of the fact that the dispute between modern and traditional architecture in the 1920s was not carried out only on paper. Yet, with a clever dialectical turn Taut formulated precisely here an invitation to the residents and passers-by to enter the large housing landscape: the inside of the horseshoe. The head buildings of the horseshoe with brilliant white façades interrupt the “Red Front” at Fritz-Reuter-Allee. Here is – flanked by community buildings – the main entrance with the flight of outside steps down to the horseshoe pond.

The northern margin of the housing estate is formed by the transverse ribbon of residential buildings along Stavenhagener Straße. They were designed by Martin Wagner. At the outer side towards the green space, the Akazienwäldchen (acacia grove), blue double-loggias stand out from the white façades. Behind deep front gardens the bastion-like projecting staircases are facing the street. Corner-houses in deep yellow frame the long white building front.

The development phases three through five
Along Buschkrugallee and Parchimer Allee and beyond the DeGeWo-estate by Engelmann & Fangmeyer are located the buildings of phases three through five which are exclusively multiple-storied dwellings built 1927–29. North of Parchimer Allee they have been arranged in a large hook-shape with far outreaching wings and an open courtyard which is used for tenants’ gardens. South of Parchimer Allee the house units are built around a closed triangular block with a garden courtyard. Here, too, Taut uses balconies in colours which differ from those of the façades – either paired or arranged in bands – for structuring the façades. In the triangular block they are facing the quiet yard with few exceptions whereas the staircases give rhythm to the entrance fronts at the street side. In the hook-shaped arrangement the balconies of the southern block are facing the street, those of the western block are facing the yard. For underlining the block-type character of the buildings the façades all around the houses are yellow. The paired balconies in front of them are bright blue. Instead of the lattice windows a post-impost shape was used for the windows. The individual structural elements of the windows have been painted in combinations of contrasting colours.

Construction phase six
Taut had less space for building the last development phase south of Parchimer Allee in 1929/30. This is why he arranged row houses and multi-storied blocks of flats in two times seven parallel ribbons along Gielower Straße. As in the first two development phases higher multiple dwellings with three stories surround an internal area with lower double-storied rows of single-family houses. At Parchimer Allee and Gielower Straße Taut made one head building on either side project from the beginning of the row into the street and green space thus avoiding the penetrability of the housing estate flanks which is so typical for ribbon housing estates. At Gielower Straße this produces a very attractive sequence of small, cubic structural bodies whose clear cut edges and white façades resemble the “international style” of the white modern architecture of the period around 1930. The head buildings towards the wider and more busy Parchimer Allee have three storeys and with their deep red façades they create a massive delimitation between the public road space and the interior of this section of the estate. Residential paths run along the western fronts of the rows of houses at a short distance from the buildings. Yet, the house entrance doors are located at the eastern sides and for reaching them people have to cross the tenant’s garden which is as wide – or rather as narrow – as a single property.

For the compact introverted form of this last phase of the estate Taut developed a colour concept with four façade colours – white, yellow, red and turquoise green. To each façade colour belongs a certain colour combination for windows and doors. This creates a lively change of colour sequences. The lines of row houses have an even and uniform colouring so that the inside of this area has a uniform image as far as colour is concerned. In all rows the
front and rear sides have alternating red or yellow plaster surfaces. The head buildings in contrasting colour – white at Gielower Straße, red at Parchimer Allee – create the impression of framing the others similar to the effect created by the white bands of the loggias at the multi-storied buildings of the two bent ribbons which screen the housing estate from outside.

This part of the estate appears much more functional because of the rational use of less structural elements, the consistent use of flat roofs and due to the fact that almost all the structural bodies have been built along the building lines nearly without projecting or retreating houses. This can be explained to an extent but not exclusively by the cutting of the grants from the mortgage servicing tax. It was also the result of the development around 1930 which produced the “international style” as a stage in modern style history.

**Outdoor facilities**

In an exemplary way Taut’s design took into consideration an interaction of housing estate structure, architecture and private as well as public green spaces. Beside integrating a glacial pond as an element defining the shape of the central part of the estate he also tried to create equal living conditions for all inhabitants of the housing estate. Each flat has a loggia or a balcony and all of these are facing the gardens and provide a connection between the outdoor and the indoor spaces. The single-family houses have adjacent gardens over their entire width and the rows of houses are separated by garden bands 40 to 60 meters wide. Even the road spaces are designed as residential streets.

The green space in the centre of the horseshoe shaped row of houses is subdivided into a public area in the middle and private tenants’ gardens in front of the building. A hornbeam hedge and a public path around the circumference separate these two areas from each other. For the centre of the public park-like area Taut and Migge planned a strictly designed pond with a wide flight of stairs – almost like a baroque scene. According to the original design the pond was to be surrounded by herbaceous plants without any trees. However, it is now dominated by large trees.

The design of the tenants’ gardens goes back to a primary layout by Migge. Sample gardens were created for the purpose of achieving a uniform layout of the tenants’ gardens which were usually to be set up by the inhabitants themselves. Characteristic slopes divide the gardens into three terrace levels. The gardens were dominated by vegetable beds and on the terraces were grown mainly flowers. According to Migge’s concept morello cherries were to be planted on the bottom level and apple trees on the middle level.

Important elements like the front gardens, the private tenants’ gardens and the planting of trees along the streets usually had a uniform design concept. In combination with the urban development and architectural composition of the buildings the designers created a both homogeneous and lively appearance of the streets and outdoor facilities.

Functional and event spaces like the so-called “Paradies” (paradise) with a playground at Miningstraße or the Hüsung – a village green-like widening with a lime tree – are harmonically embedded in the overall structure of the estate and give the Hufeisensiedlung its unique character. Areas for drying laundry, uniformly designed waste bin sheds and places for carpet beating as well as a network of service paths take exemplary care of the functional needs of the inhabitants.

**Wohnstadt Carl Legien**

Still in the vicinity of the tenement house quarters the “Wohnstadt Carl Legien” is located in the Northeast of the city centre. This estate belongs to the densely populated district of Prenzlauer Berg and near it in the South passes the commuter railway ring line. The city estate with its four- to five-storied houses was built in 1928 through 1930 by order of “Gemeinnützige Heimstätten-, Spar- und Bau-Aktiengesellschaft” (GEHAG) (non-profit housing, savings and construction shareholding company). It was designed by the company’s chief architect Bruno Taut who cooperated in this case with Franz Fig. 32: Großsiedlung Britz, multi-storey buildings of the last development phase at Fritz-Reuter-Allee, 2005
Hillinger, chief of the design office of GEHAG). The wide street Erich-Weinert-Straße runs in East-West-direction through the middle of the estate. The blocks of flats reach up to Georg-Blank-Straße and Lindenhoekweg in the North, Sültstraße in the West, Küselstraße in the South and Gubitzstraße in the East. There they are surrounded by estates from the 1920s and 1930s. When it was completed the GEHAG-estate was named in honour of Carl Legien, the trade union leader who had died in 1920.

The task of Taut and Hillinger was to compensate the high property price by setting the buildings densely fit for a city centre and yet in line with modern mass residential development requirements in terms of social conditions and urban hygiene. This task could be fulfilled only by focussing on multi-storied buildings. The designers had to adhere to the street pattern designed by Hobrecht (designer of the Berlin urban development plan of the 19th century) and yet to “beat builders of tenement houses with their own weapons and to prove that the new principles allowed a better urban development” (Kurt Junghanns, Bruno Taut 1880–1933. Berlin 1970, p. 70).

Here, too, Taut combined rows of houses, block margins and green spaces for creating a novel semi-public space structure. Thus he managed to create the impression of living in green spaces even in the middle of the city. He defined Erich-Weinert-Straße as axis of communication which is extended by green bands and opens towards six paired U-shaped courtyards. The yards are covered with wide lawns, bushes and trees. They form an impressive sequence of generous mutually linked housing estate spaces. They fulfil the function of social spaces which create identity and express the community principle as Akazienhof at Falkenberg, the semi-open courtyards at Schillerpark and the horseshoe and the Hüsung at Britz.

The architectural structure and the clever application of colours enhance the spatial design at Erich-Weinert-Straße and create visual links across the street. Impressive head-buildings with five storeys and a clear structure provided by vertical bands of loggias, corner windows and round corner balconies attract the eye and guide the view into the yards. The central residential rooms and large loggias as wide as the flats are all facing these yards and are thus shielded against the traffic on the roads. The width and lively structure of the yards is countered by the narrow residential streets and the totally flat façades.

The orientation of the flats towards the deep yards and the full-width loggias with the plastic appearance remind of the “Tusschendijken housing estate” of 1919 by J.J.P. Oud. Taut developed this motif into a front of loggias covering all storeys which lies in front of the actual building block and is painted in a contrasting colour. His original invention in this case is the colour system for façades, windows, entrance doors and staircases which has been restored with the most recent refurbishment.
Similar as at Britz colour became a constitutive part of architecture and had to provide a clear structure for spatial elements. Thus, the narrow residential streets are surrounded by yellow façades which makes them appear wider. The high head-buildings at Erich-Weinert-Straße are painted in the same light colour so that they underline the spatial link between the open courtyards across the street. The garden courtyards are intensely coloured spaces with a particular character. To make them appear wider the rear walls of the loggias and walls in opposing courtyards were painted in the same colour – one pair of yards is red brown, one is blue and one is dark green. In these yards the loggias are painted in the same shade of yellow as the street façades which makes them stand out with even more plasticity from the darker walls.

Despite its location near the city centre the estate got its own infrastructure with two laundries originally and a central heating plant. They are located in the eastern part of the housing estate and now they are either disused or they are used for other purposes. Shops and (in the past) a restaurant and café are concentrated at Erich-Weinert-Straße. They are located at the head-buildings or in a row of shops between Sodtkestraße and Gubitzstraße.

Outdoor facilities
The garden architecture of the entire estate was dominated by the wide carpet-like lawns. Only a small number of solitary trees were planted in these areas. The paths through the green areas inside the courtyards run parallel to the buildings and narrow bands of low bushes separate the paths from the façades. The paths connect the entrances to the basements located on the yard-side with the usually central waste bin sheds. The waste bin sheds are accompanied by two carpet beating places and they are surrounded by bushes and herbaceous plants.

At Erich-Weinert-Straße the lawns of the courtyards are framed by field maple hedges so that they appear as if they were pushed towards the street space. This supports the connecting effect of the courtyards which are opened towards Erich-Weinert-Straße. Groups of robinias were planted at the head-buildings at Erich-Weinert-Straße. On the one hand these groups of trees created a landscaping analogy in East-West-direction to the head-buildings for the street space which was designed as communicative axis and on the other hand they allowed the view into the courtyards. Additionally the façades of the head-buildings at Erich-Weinert-Straße were partially covered with vines which enhanced the impression of a green street space. Low privet hedges between the U-shaped blocks are flanking the narrow lawns of the front gardens.

Weiße Stadt
Between the Siedlung Schillerpark and Alt-Reinickendorf which was a village far away from the city centre in the past the self-contained shape of the large residential estate of “Weiße Stadt” stands out markedly in the city structure. This housing project was implemented between 1929 and 1931 under the leadership of the Stadtbaurat (urban development councillor) Martin Wagner by a
working group consisting of the architects Otto Rudolf Salvisberg, Bruno Ahrends and Wilhelm Büning. This approach was the same as for the simultaneously built Siemensstadt. Salvisberg was responsible for designing the urban development while the green plan was designed by Gartendirektor (gardening director) Ludwig Lesser. The client for the construction of the 1268 flats was “Gemeinnützige Heimstätten-gesellschaft “Primus” mbH” (non-profit housing society with limited liability). Most of the buildings have three storeys and all of them have flat roofs.

The master plan, the design of the houses and flats are rational and economical. Since people demanded cheap very small flats the estate has a rather high proportion of single-room apartments or apartments with a maximum of 2 1/2 rooms (80 %). Yet, since the municipality provided finance for this project at Reinickendorf just as for that of Siemensstadt the architects could experiment with various standardised ground plans. They designed for instance four types of standard kitchens with largely identical basic facilities. Further, they carried out calculations concerning the economic viability of building dimensions and servicing which resulted in a uniform depth of the houses and prefabrication of structural elements.

Today the houses of this estate with their flat roofs, marked cubic structures and in particular with their membrane-like delicate white surfaces shine out from the mix of older and newer suburban buildings. Salvisberg, Ahrends and Büning had chosen lively colours for the roof overhangs, rain down pipes, entrance doors and window frames which had even enhanced the brightness of the white walls. The recent restoration re-established this colourfulness.

The housing estate is clearly subdivided into three parts by the three architects. It has a North-South orientation and its layout had to be based mainly on the existing road network with the avenue Aroser Allee heading towards the village green of Alt-Reinickendorf. The section in the South between Emmentaler Straße, Gotthardstraße and Schillerring was designed by Ahrends, the centre with its radially positioned ribbons up to Genfer Straße by Büning. The adjacent section starting with the bridge house crossing Aroser Allee up to Lindauer Allee was designed by Salvisberg. All three sections share an open internal structure of block margin buildings and rows of houses with interconnected green spaces.

Bruno Ahrends designed the gate-like buildings projecting into the pedestrian path at the southern entrance to the estate. They seem to narrow Aroser Allee and attract the view to the main road and the bridge house by Salvisberg. The buildings are two storeys higher than the others and the high jamb storeys which are interrupted only by a row of tiny windows give it a strong and almost military appearance. The flagpoles – a form of pathos of the trade union movement – reaching out from the middle of the narrow side far beyond the roof edge enhance this entrance and turn it into a symbol for the housing
estate community. Similar flagpoles have been used at the corner block designed by Erich Mendelsohn as seat of the metal workers union at Berlin-Kreuzberg.

The residential houses designed by Ahrends in long uninterrupted rows follow the bend of Aroser Allee and the parallel Romanshorner Weg. The fan-shaped area between Aroser Allee, Schillerring and Emmentaler Straße is framed by short ribbons on the margins. The children’s home which has also been designed by Ahrends is embedded in the open space between the two North-South rows of buildings. Ahrends gives his buildings individuality in particular by the design of the staircase windows and entrance doors which by their expressionist brick frames stand out impressively from the cool plain white façades. The loggias are facing the yards and their glass bodies give the façades a plastic structure.

Rows of houses dominate the section designed by Wilhelm Bünning. However, his three-storied ribbons are not standing parallel with North-South orientation as the ribbon doctrine would have required but they are positioned radially starting from the bent Schillerring. They form the outer ring of the fan between Aroser Allee and Emmentaler Straße. The trapezoid areas between them are green spaces which are open towards the tree filled Schillerring at their narrow ends and closed by short three-storied cross bars at the wider ends towards Genfer Straße. This creates a clear mark for the threshold between public road space and semi-public green space at the margin of the estate and simultaneously abolishes this division for its interior. The functional architectural language of the houses with their roof overhangs and broad coloured eaves expresses calm rootedness. At Emmentaler Straße and Genfer Straße the rows of houses meet two five storey high pre-war buildings. Bünning artfully placed
high-rise buildings with single axes between the old and the new houses and these high-rises stand out with sharp edges from the building line thus marking the beginning of the estate.

In the North the bridge house by Otto Rudolf Salvisberg crosses Aroser Allee and closes the southern section of the housing estate while starting at the same time the northern section which was designed by that same architect. The 40 m wide building of reinforced concrete rests on four rows of pillars with narrow cross-section and with its four upper storeys it looks as if it was weightlessly floating between the five-storied adjacent buildings. The galleries at the northern side and the uninterrupted bands of loggias as wide as the apartments on the southern side give both sides of the shining white building a plastic structure. Due to its function as middle of the housing estate the house must not have a rear side. The two clocks in the middle of the top storey on both North and South side fulfil the communal function of church or town hall clock for the housing estate. At about 1930 this was quite useful since not everyone had a reliable watch. Salvisberg’s bridge house is dedicated to the rather abstract ideal of unconditional modernity being thus far away from the expressiveness and monumental character of conventional housing estate portals which are at least hinted upon in Ahrends’ gate houses at the southern end of the main road. The type of the bridge house calls into mind that probably most famous building of classical modern architecture in Germany: the Bauhaus at Dessau – designed and built in 1925/26 by Walter Gropius and Adolf Meyer – with its double-storied bridge house supported on pillars which connects the workshop and the classroom sections.

Behind the bridge house on the western side of Aroser Allee starts a 280 m long row of houses whose plain and closed front along the road looks like a solid opposite for the large open space with its sports grounds and schools on the other side. According to the original concept new school buildings were to be erected there. In contrast to the expressive clarity of the houses designed by Ahrends the rows by Salvisberg possess a finely drawn functionalism. They are an image of timeless modernity. The two rows at Romanshorner Weg are very particular. They present a kit-like combination of row house and multi-storey patterns. On ground floor level a flat with access to a garden lies below always 2 maisonettes occupying the 1st and 2nd floor.

The large number of service facilities is quite unique not only for the time when the estate was built but also in...
comparison with today’s standards. 24 shops which are not concentrated at a central location but distributed over a number of dominating urban positions, a children’s home in the section designed by Ahrends and even a medical practice document the high social standard of the Großsiedlung “Weiße Stadt”. The district heating plant with its adjoining central laundry between Genfer Straße and Schillerring was demolished already in 1968/69 before the housing estate was listed.

Outdoor facilities

The design of the open and green spaces was based on a concept by Gartendirektor Ludwig Lesser and it corresponds closely with the urban structure and the architecture of the estate’s three sections. Like that of the landscaping of other large housing estates of the same period the design of the outdoor facilities of Weiße Stadt also reflects the intention to produce rational and functional designs. The park-like outdoor facilities were to provide multiple uses for the inhabitants. The semi-public and private outdoor facilities within the blocks were also supposed to be attractive for the public. Lesser’s socially orientated design principles, his holistic style created the suitable frame for the approach of neues bauen which is represented by this estate.

His green spaces were designed to fully harmonise with the individual spatial and architectural situations. His intention was to stress the coherence of several buildings and enhance the appearance of individual rows of houses.

He went to the extent of choosing flowers according to the colour of their blossoms so that they would enhance the brightness of the white façades and the impression of their coloured elements. Salvisberg’s three-family houses at Romanshorner Weg are accompanied by tenants’ gardens in strict patterns. These gardens are separated by uniform lateral paths and planted bands. The remaining areas are dominated by lawns where solitary trees and groups of trees were liberally placed. They created an interesting contradiction to the serial rows of yard-side fronts. Moreover each of the green spaces got its place where adults could sit and a playground for children as well as waste bin areas at suitable locations. Some of the latter were hidden behind lattice work or high hedges. Some of them were placed in depressions and visibly integrated into the overall design.

The first changes were introduced quite early. The small tenants’ gardens at the three-family homes do not exist anymore, most of the playgrounds and seats have disappeared and the planting concept has been disturbed by newly planted greenery which deviates from the patterns or by wild growing plants. Yet, the close interaction of public and semi-public greenery remained visible and the intention of the garden architect Lesser to create social housing estate gardens can still be experienced.
Großsiedlung Siemensstadt (Ringsiedlung)

Built in 1929–34 the Großsiedlung Siemensstadt at the north-western margin of the city centre of Berlin belongs to one of the biggest housing areas of Berlin. Across the district limits an East-West band of residential estates lies between Siemensstadt with its mix of factories and company housing estates in the district of Spandau in the South and West, the public park of Jungfernheide in the North, and in the East its post-war courtyards by Hans Scharoun reach Kurt-Schumacher-Damm. The area of the Großsiedlung Siemensstadt is located between Heckerdamm at the public park and Mäckeritzstraße in the South in the centre of this entire area.

Similar to the working group formed simultaneously for the project at Reinickendorf a working group was formed by the architects Hans Scharoun, Walter Gropius, Fred Forbat, Otto Bartning, Paul Rudolf Henning, Hugo Häring and the garden architect Leberecht Migge. The group was headed by Stadtbaurat (urban development councillor) Martin Wagner. The client for the project with 1268 tenement flats in flat roofed multi-storied buildings was “Gemeinnützige Baugesellschaft Berlin-Heerstraße mbH” (non-profit limited liability building society Berlin-Heerstraße) which was owned by the city.

Each architect was allocated the design of individual rows of houses. The result is a very varied image of the housing estate. It contains examples for all styles of neues bauen from the functionalism of Gropius through the spatial art of Scharoun up to Häring’s organic wealth of shapes. Scharoun had the task of creating an architectural frame for all the different styles. Here he developed for the first time his leitmotif of “neighbourhood” which relates to the space in which people live. The ideal is not the strictly functional row of houses but a casual spatial structure on the basis of the natural landscape and with narrowing, widening, delimitation and extension of space, screening and opening. Yet, despite all freedom of composition the pattern preserved the North-South orientation required by the doctrine of building ribbon houses and thus assures that lots of light, air and sunshine reach the flats. Scharoun had to preserve the existing trees and from the beginning these trees strengthen the landscape character of the housing estate.

Scharoun reserved for himself the designing of the access to the estate from the city side. Here, south of the so-called Siemens railway line he had to respond to the existing buildings with their closed pattern. The access of the estate was to be built on a fan-shaped property formed by the curve of the commuter railway line and cut through the middle by Jungfernheideweg. Scharoun designed a kind of funnel consisting of three five-storied buildings on both sides of the street and narrowing towards the railway line underpass. The interior space is occupied by a garden area with old trees. Especially for the headbuilding on the western side of Jungfernheideweg colloquially called “Armoured cruiser” Scharoun used a very plastic design with staggered height, deep cuts for the
roof terraces, balcony and circular windows all of which give it the appearance of a ship. The ochre and yellow colour of the inner balcony walls makes the dominating white of the façades stand out even brighter. This building with its lively structure is opposed in the East by a calm façade which plays a subtle spatial game with loggia segments.

The actual housing estate area starts behind the railway line and merges with the public park of Jungfernheide at Heckerdamm. The 338 m long building by Otto Bartning along the slightly bent Goebelstraße constitutes the firm architectural limit in the South and acts as noise bund and optical screen between the estate and the Siemens railway line as well as the estate’s heating plant. Its relatively unstructured wall-type appearance also creates a delimitation from the opposite rows of houses by Häring. The rear façades of the 26 identical house units with a common green space behind them show a more lively profile with their coupled balconies which reflect the uniform ground plan of the two-room flats.

After the end of the war reconstruction of the eastern end of the row at the margin at Goebelstraße lead by Otto Bartning and also the simultaneous construction of three complementary houses (Goebelstraße 11–19) by Bartning strictly adhered to the original design. In contrast to this Hans Scharoun chose a completely different style for the head-building at Goebelstraße 1–9 (built 1955–56). The gallery block with its saw blade shape represents a transition to the boldly invented shapes and ground plans which Scharoun implemented in the adjacent residential estate of Charlottenburg-Nord at the eastern border of Siemensstadt after the war. This head-building already presents Scharoun’s greatly differentiating style with irregular ground plans for the flats. The kitchens, dining areas and toilets of the apartment-like small flats are orientated towards the gallery at Goebelstraße whereas the interlaced bed rooms and sitting rooms with wide windows open towards the courtyard.

The two rows by Gropius with their sharp and edgy contours and the cool functional strictness of the sequence of identical stylishly elegant house units represent more than all the other residential buildings the programmatic rationality of the design of large housing estates by neues bauen. These rows are located at the margin of the estate at Jungfernheideweg and with a short gallery block they
provide a transition at Goebelstraße to the neighbouring company residential estate "Heimat" designed by Hans Hertlein and built at the same time. The colours of the buildings which are limited to a pattern of white-grey-black reflect Gropius' technical aesthetics. The steel frames of the windows of staircases and loggias, apartments and the protective railings of the roof gardens are all painted slate grey so that the band-like structure of these elements stands out clearly from the bright white of the façades.

Between Jungfernheideweg and Geißlerpfad the rows of houses designed by Hugo Häring with their North-South orientation and the six rows of houses designed by Paul Rudolf Henning from the North meet at a wide green band in a staggered pattern. This green band is an avenue where playgrounds, a day care centre for children and resting places were to be installed. The “Green centre” of the estate was designed by Leberecht Migge. Where the gardens of the rows of houses meet it has the function of a community green and open space in the sense of Scharoun's idea of neighbourhood. In the East at Geißlerpfad lie the three rows of residential houses designed by Fred Forbat. Nowhere we find the monotony which is inherent in the doctrinaire ribbon architecture.

The architecture of the functionalist Häring is characterised by natural looking materials and colours and especially the "soft" shapes of the kidney-shaped balconies standing out far from the building fronts. He is the only one placing balconies and staircases on the western side. The strong vertical element of the staircase windows harmonises with the dominating motif of the layered rounded balconies. This makes us see the façades in the rhythm of the plastic motifs which are mirrored at the staircase axis but not in that of the house units. Häring explained the unusual shape of the balconies with a functional intention. On the one hand he wanted the balconies as extensions of residential space to stand out as far as possible, on the other hand he wanted to reduce the shade they cause. The yellow-brown bricks, the beige smooth plaster, the white window frames and the dark brown entrance doors merge with their warm colours and the surrounding green into an overall image which demonstratively opposes the strictness and rationality of Gropius buildings.

Henning's six rows of houses have natural looking, reserved colours similar to those used by Häring. The same yellow plaster – here with structured surface, the brick cladding in various shades of yellow and the window frames in light yellow give the group of buildings the image of a garden town and summer resort despite the ribbon pattern. This impression is enhanced by the fact that the ground floor apartments of the three eastern ribbons
open to the green space with terraces which are as wide as the houses. The rows of wide projecting balconies with their solid parapets and heavy shadows on the western side of the buildings are a very expressive element. The two rows of houses in the east which were built during the last development phase in 1933–34 are much more austere and have no balconies, loggias or terraces. The plain façades reflect the change in public housing construction after the Nazis took power. They led to worse housing standards and changes in architecture.

The three ribbons of houses by Fred Forbat which complete the estate in the East at Geißlerpfad are quite varied. Similar to the buildings designed by Gropius the clear geometric shapes of the buildings are dominated by a functional style with white façades and highlighting brick elements in various shades of yellow. Forbat’s architecture is based on strict, carefully shaped simplicity and the stressing of closed contours which are enlivened by asymmetric highlights. The very long northern ribbon shows one of the most striking façade solutions in mass housing construction. Vertical walls and shallow curves frame like projections the entrances and vertical bands of the staircase windows. They give the entire front along the street an unusual wave-like plastic structure.

Outdoor facilities
Leberecht Migge was responsible for designing the outdoor facilities. Characteristic for his design is the creation of interconnected housing estate spaces and the consistent integration of existing landscape elements like the trees of Jungfernheide. Especially in the section designed by Scharoun the existing land was cleverly modelled for the purpose of preserving the trees and the landscape. As a result of these works generous lawns with old trees create a park-like environment in the spaces between the ribbons and in particular in the area between the sections designed by Henning and Häring which was to become a community facility. This effect was supported by the planting of herbaceous plants, low bushes and hedges in the small gardens in front of the ribbon buildings and also by the fact that many façades are covered with Virginia creeper.

For avoiding that the park-like image was disturbed by the necessary service facilities and in particular the waste bin sheds these were carefully integrated into the overall design. Leberecht Migge designed for instance for the section designed by Häring waste bin sheds overgrown with green climbers and with green roofs where sunflowers and nasturtium grew. These sheds still exist although without the greenery. At Henning’s section these facilities were placed in depressions of the ground which preserved the transparency of the park-like, flowing green spaces and the view towards the public park Jungfernheide in the North.

Private and public housing estate areas were treated as equals and therefore the trees which were planted in the streets and in the front gardens some of which reach out into the streets were all covered by the overall garden design concept. The Lombardy poplars which were planted at marked places were characteristic for the estate.
Between the sections designed by Henning and Häring was established a generous park area with common playgrounds and meeting places. It creates a spatial connection between these two sections. In the “Green centre” were established three differentiated meeting places and playgrounds which were linked with the surrounding buildings by various paths. These facilities were embedded into a spatial alternation of lawns and existing old trees. In the North and East this area was surrounded by slopes.

Just as at the Großsiedlung “Weiße Stadt” the additionally established tenants’ gardens in the section designed by Henning create a lively alternation of public, semi-public and private areas within the housing estate.

2. B History and Development

Berlin’s rise to a metropolis in the 19th century was based on both its function as capital of Prussia and later the German Reich (since 1871) and its development as a centre of industry and finance in central Europe. By approximately 1900 Berlin had finally become a metropolis.

However, the issues which had arisen in conjunction with this development had been solved only incompletely. No way had been found for providing decent housing for the masses of the population. Housing construction was profit-oriented and in the hands of individual builders and property companies. Working class people were forced to live in tiny flats in tenements and often these flats were located at backyards and in basements of these blocks. Within a period of 25 years the population of Berlin had doubled. In 1849 the city had 412,000 inhabitants and in 1875 it had already grown to more than 960,000. By 1900 the city had 1.89 million inhabitants.

Due to the pressure of the lack of housing and the miserable conditions in the hopelessly overcrowded tenements occurred a real wave of founding of housing construction cooperatives and non-profit housing construction societies already as from the 1880s. This development made Berlin the centre of communal housing welfare. Bismarck’s social welfare laws which came into force between 1878 and 1889 and were the first to provide some security for the working and living conditions of working class also worked in favour of the development of socially reformed housing construction. Further, it had become possible after the amendment of the cooperative law and the introduction of the limited liability company (GmbH) in 1889 that well-to-do philanthropically minded citizens found themselves in the position to join non-profit housing construction societies without being liable with their entire property. At the same time the possibility was created to acquire low-interest loans from the reserves of the newly created social insurances for housing construction for the low income groups. Furthermore the state started to provide financial support for the cooperative’s initiatives so that the number of housing construction cooperatives in Germany grew from 38 in 1890 to 1583 in 1914.

This had created the initial preconditions for thorough and comprehensive innovations in housing construction and especially for the construction of smaller, self-contained and completely equipped flats. The “Berliner Spar-
und Bauverein" (Berlin savings and construction association) was founded in 1892 for building small flats. Most of its members were Jewish citizens of the capital. Its contract for designing its first housing estate with double-houses at Sickingenstraße in the district of Moabit went to the architect Alfred Messel who became famous also outside Berlin as a pioneer of neues bauen mainly for his department store designs. The Moabit estate created benchmarks both for the development of rational housing ground plans and also for attractive architecture in reformed housing development. The same applies for the group of buildings at Proskauer Straße in the district of Berlin-Friedrichshain which was also designed by Messel and named “Weisbach group” after the Jewish client for whom it was built. The same Spar- und Bauverein later employed Bruno Taut for developing Gartenstadt Falkenberg and the estate Schillerpark.

In the wake of the broad reform movement which was carried by land reformers like Adolf Damaschke and housing reformers like Rudolf Eberstadt more non-profit and cooperative construction societies were founded around 1900. They made first steps towards implementing a new social culture of housing and living. One of them was the housing construction cooperative Freie Scholle (Free Land) which later awarded contracts to Bruno Taut. Others were Vaterländischer Bauverein (patriotic construction association) and Beamtenwohnungsverein (civil servants housing association). Both supported the development of ground plans and large-scale urban development on their large and medium-sized estates. On the one hand they presented concepts for urban development which dissolved the closed blocks. On the other hand they tried to initiate housing estate projects which reformed living. They had these projects implemented at the periphery of Berlin. With them they opposed the then conventional metropolitan development.

One of these reformist projects was the design by Bruno Taut for Gartenstadt Falkenberg at Alt-Glienick which was built by “Gemeinnützige Baugenossenschaft Gartenvorstadt Groß-Berlin eGmbH” (non-profit building cooperative garden suburb Greater Berlin registered limited liability company). Here Deutsche Gartenstadtgesellschaft (German garden town society) wanted to implement new forms of living, housing and commercial activities according to the model of the English garden town concept which had been developed by Ebenezer Howard and Raymond Unwin. So they wanted more than just spacious settlements with lots of greenery. They wanted to exclude property speculation and the charging of exorbitant rents and the inhabitants should come from all social classes. However, due to the war were implemented only parts of Bruno Taut’s extensive urban development plan.

The consequences of the First World War for social policy and the founding of the Weimar Republic made a great impact on the development of the city of Berlin. For the urban development plan the transition to the republic in 1918/19 brought a major change of the framework conditions: the democratic electoral law for the regional and local parliaments opened the way towards a more social development and planning policy and the new order also made it possible to implement long overdue changes of the administrative structure. 1920 saw the merger of 8 towns, 59 rural communities and 27 manor districts to form Greater Berlin. This created the precondition for applying uniform planning principles for the entire area.

The economic expansion of Berlin mainly in the field of electrical engineering which was supported by the municipal investments further facilitated Berlin’s rise to the rank of an acknowledged metropolis. Yet, the limited financial resources which were available during the Weimar Republic were not sufficient for implementing large-scale
urban development projects in inner-city locations. In contrast to this reformist housing construction could be done on a large scale in the areas at the margin of the city.

The planning works were dominated by the Berlin central government. The guidelines of housing policy and urban development were mainly determined by the two urban development councillors Ludwig Hoffmann (1896–1924) and Martin Wagner (1926–1933). Wagner was a committed social-democrat and architect and it was mainly him who pushed forward the necessary construction of reform housing estates. This was the more important because the lack of housing in Berlin had been further aggravated by the war. The political and economic consequences of the World War in conjunction with new building laws of the Weimar Republic had made an end to the entirely private housing construction. The new administration of Greater Berlin was now facing the task of reducing the drastic lack of housing as quick as possible. The demand for small flats amounted to 100,000 to 130,000 units. Housing construction was finally re-activated after inflation and currency reform by the introduction of the mortgage servicing tax in 1924. This mortgage servicing tax was a tax on the payments for redeeming mortgages and it was introduced for making the house owners who had profited from inflation finance social housing construction.

The reform building regulations which came into force in 1925 provided the basis for a new social housing development. It aimed at reducing the density of buildings in residential estates and at clearly separating the functions of individual zones and it divided the entire area of the city into different development zones: starting in the city centre where buildings were allowed to have 5 storeys density decreased towards the margins where the large housing estates were built. Here buildings were allowed to have a maximum of 2 to 3 storeys. The density of building was very reduced in these areas because it was forbidden to build cross buildings and wings.

Berlin had the opportunity now to implement housing development in accordance with the models of neues bauen – i.e. housing for the broad masses of the population. Within only seven years – from 1924 until 1931 were built more than 146,000 flats. Such a volume of construction was reached never again, not even during the post-war period of the 1950s. The new social mass housing construction was financed by trade-union and cooperative, municipal or other non-profit construction societies. In 1924 trade unions and building cooperatives founded GEHAG (“Gemeinnützige Heimstätten-Spar- und Bau-AG” (non-profit housing savings and building shareholding company). It had been proposed by Martin Wagner and became the leading builders society in Berlin and all Germany. Thanks to its large business volume and the design achievements of its company architect Bruno Taut GEHAG gained great influence on urban development and architecture in Berlin.

Taut’s close friend Wagner had participated in designing the first phase of development of the Hufeisensiedlung before he was elected urban development councillor in 1926. He held this position until his removal from office by the Nazis in 1933. Wagner played a central role for non-profit housing welfare in Berlin during the Weimar Republic. He created a non-profit association model in
which GEHAG was responsible for planning, design and control of the construction works. The works were executed by social construction companies like “Berliner Bauhütte.” Wagner wanted to establish an economical and rational urban development. For the development of Berlin he created a poly-centric model which aimed at dissolving the division between town and countryside. Within the railway ring which surrounded the Berlin inner-city area densely built residential quarters in open multi-storey design mixed with greenery were to fill the remaining gaps within the city’s structure. Among them are the Siedlung Schillerpark (1924–1930) in the district of Wedding and Wohnstadt Carl Legien (1928–1930) in the district of Prenzlauer Berg. Both were designed by Bruno Taut.

During the early phase of the mortgage servicing tax era the main purpose of housing policy consisted in developing estates with small single-family houses in the suburban areas. By this means the responsible politicians wanted to counteract proletarisation in mass housing development and re-create the people’s link with their houses and with nature which had been lost. They also wanted to give the inhabitants of these housing estates the opportunity to become at least partially self-sufficient in food production. This is why initially a large proportion of the mortgage servicing tax income was used preferably for erecting low buildings (1 or 2 storeys) and mostly small flats. The general aim was to develop major housing estate complexes with low buildings mixed with lots of greenery outside the city’s centre and embedded in the landscape of the Mark. One of them is the first large-scale project of the Berlin residential development policy: the Großsiedlung Britz which soon was named Hufeisensiedlung. It was erected by initiative of Martin Wagner in 1925 through 1930 on the premises of the former manor of Britz and it was designed by Wagner and Taut. As for Wohnstadt Carl Legien the works were financed by GEHAG.

When the income from the mortgage servicing tax decreased in the late 20s the city of Berlin mobilised own finance for alleviating the still pressing shortage of housing with further housing estates whose houses were now built as multi-storey ribbons. Although the world economic crises of 1928/1929 had an impact on housing construction the Berlin government was able to have erected simultaneously two large estates on city-owned land in 1929–31. One of them was Weiße Stadt in the district of Reinickendorf and the other one was Siemensstadt in the districts of Charlottenburg and Spandau. The works were executed by city-owned non-profit construction companies. Urban development councillor Martin Wagner was in control and he had formed two teams of renowned architects of neues bauen for having the designs done. The teams included for instance Hans Scharoun, Walter Gropius, Hugo Häring, Otto Rudolf Salvisberg and Otto Bartning.
Both the Großsiedlung Siemensstadt and Weiße Stadt at Reinickendorf were spacious, modern residential quarters located near industrial centres. The estates had common green spaces which were virtually ideal reflections of the aims of the Congrès Internationaux d’Architecture Moderne (CIAM): light and air for healthy living with a humane spatial concept for living and leisure, work and transport. Weiße Stadt and Siemensstadt are both among the last housing projects built under the auspices of urban development councillor Martin Wagner in line with the model of neues bauen and with the purpose of renewing the culture of urban living. In 1931 the emergency laws by Brüning lead to severe cuts in state grants.

When the Nazis took power in 1933 this resulted in completely changed structures of organisation and personnel in the municipal administration of Berlin and ended the democratic housing development which had largely been influenced by social-democracy, left-wing trade unions and cooperatives. Martin Wagner had to resign from office. The building policy of the Nazis was based on a different idea of arts. Modernity and neues bauen were no longer desired and Bruno Taut, Martin Wagner, Walter Gropius and many other protagonists of modern housing development had to emigrate.

In the 1930s and 1940s no major changes or distortions were made in any of the housing estates and they hardly suffered any destruction during the war. Their appearance was occasionally altered by early repair works after the end of the war when in individual cases the works did not re-establish the original design. As from the 1980s many of these changes could be undone by new works for re-establishing the monuments.

The designated housing estates have preserved their significance as exemplary areas of social housing. Until today all of them are very well accepted by their inhabitants. There is a considerable demand for their flats with their ground plans which are considered to be exemplary.

The individual housing estates

Gartenstadt Falkenberg

Gartenstadt Falkenberg was built in 1913 until 1916. The project had been initiated by “Deutsche Gartenstädtegesellschaft” (German garden town society) which founded a special-purpose cooperative called “Gemeinnützige Baugenossenschaft Gartenvorstadt Groß-Berlin eGmbH” (Non-profit building cooperative garden suburb Greater Berlin registered limited liability company) for building this housing estate. The German garden town movement followed the English example in propagating a housing estate model for comprehensively reforming living and social conditions, culture and housing. Since 1907/1908 the first German projects of this
reformist movement were planned and soon also implemented at Dresden-Hellerau and Karlsruhe-Rüppurr. 30 partners – most of them free trade union members, social democrats and idealists with reformist ideas – founded the “Baugenossenschaft Gartenvorstadt Groß-Berlin” (building cooperative garden suburb Greater Berlin) in Berlin on 12th April 1910. With the other cooperatives which were founded at the same time in Berlin (“Freie Scholle” (free land) at Tegel, “Ideal” at Neukölln and “Paradies” (paradise) at Bohnsdorf) they intended to fight the tenement misery in the city of Berlin.

After tedious negotiations the cooperative purchased in 1913 the largely unserviced estate Gut Falkenberg with a size of approximately 70 ha. Under the rule of king Friedrich II it had been an unsuccessful mulberry plantation. The estate was characterised by a hilly landscape with the hill Falkenberg being the highest elevation. This rough landscape had to be made accessible by adapting streets to it without disturbing its character. Further, the planners had to take into account regulations of the community’s construction authority which only permitted an open country-house development with villas along the street Am Falkenberg. The planners intended to show the possible variations of a combination of small houses and gardens by presenting various ground plan solutions.

Their aim was to represent the idea of the garden town in a kind of model housing estate.

As early as 1912 Hans Bernoulli had presented a housing estate plan which was rejected by the community and since he moved to Basel he was not able to process it further. He was substituted by Bruno Taut who was at that time consulting and chief architect of Deutsche Gartenstadtgesellschaft. Taut’s visionary housing estate design envisaged a spacious garden town which was adapted to the landscape and would house a total of 7500 inhabitants from all walks of life in approximately 1500 flats – from small multi-storied houses with flats consisting of kitchen, sitting room and a chamber up to villa-like town-houses. In deviation from the ideals of the English garden town movement Falkenberg was not to be a self-sufficient town with own production facilities. Rather, it was to be a spacious suburban housing estate with suburban infrastructure and obvious connection with the nearby city. Cultural and social facilities like the public festival house and a home for single adults were meant to complement the housing estate structure as centres giving it an own identity.

However, due to the First World War the works had to be discontinued and therefore initially only 128 flats were built in two phases – in addition to six multiple dwellings.

Fig. 52: Gartenstadt Falkenberg, Akazienhof with rows of robinias, 1930s
were built small standardised single-family houses most of which were arranged in groups: in 1913 were built 34 housing units at “Akazienhof” and in 1914–15 were built 94 flats on the adjacent land at Gartenstadtweg. For designing the individual house (Am Falkenberg 119) for the general secretary Adolf Otto was employed Heinrich Tessenow who was a renowned architect at that time already since he had designed the buildings for Gartenstadt Hellerau. All other houses of the housing estate were designed by Bruno Taut. Among them is the only double house of the third phase which was completed in addition to the “Haus Otto” in 1916 despite the war.

All private gardens and probably also the common outdoor facilities were designed by the Berlin Gartendirektor Ludwig Lesser. He had been working in Berlin since 1902 and was involved in the development of Gartenstadt Staaken at the same time. Lesser’s concept for Falkenberg required the creation of small private gardens where the inhabitants were to produce part of their food. This makes Gartenstadt Falkenberg probably the first housing estate where the private gardens were given so much significance that they became part of the design.

After the end of the First World War “Gemeinnützige Baugenossenschaft Falkenberg” was forced to merge for economic reasons with “Berliner Bau- und Sparverein 1892” (Berlin construction and savings association). The society which resulted from this merger was renamed in 1942 and became “Berliner Bau- und Wohnungs-Genossenschaft of 1892” (Berlin construction and housing cooperative of 1892). Since the “1892” cooperative focussed on inner-city projects like Siedlung Schillerpark whose construction began in 1924 it did not intend initially to continue the development at Falkenberg. Due to the amended distribution policy with respect to the income from the mortgage servicing tax the extension designed by Taut as from 1926 was not executed. The grants from the mortgage servicing tax were at that time focussed on urban multiple dwellings. Later the world economic crises prevented that Taut’s plans were implemented. During the Nazi-rule the housing estate was not extended, either.

In 1951 the “Municipal housing administration” became responsible for the settlement which was now situated on the territory of the German Democratic Republic (East Germany). This organisation understood its social and historic significance and conserved and maintained the housing estate as far as possible under the conditions of that time. After re-unification “Berliner Bau- und Wohnungs-Genossenschaft of 1892” (Berlin construction and housing cooperative of 1892) again took over the man-

---

Fig. 53: Gartenstadt Falkenberg, Gartenstadtweg 44/50. Terraced front gardens with concrete retention walls, approximately 1915
agement of the estate in 1991. Soon after that it started a
detailed investigation and refurbishment for conserving
the monument. These works were completed in 2002.

**Siedlung Schillerpark**

"Berliner Spar- und Bauverein" had to wait until the First
World War and the period of inflation were over before
they could start to implement the housing project at
Schillerpark. The housing association which had been
founded in 1892 and had long-standing traditions had
purchased the property in the North of Berlin as early as
1913. Already before the war the association had been
one of the pacemakers of reformed housing development
with projects designed by Alfred Messel. In 1914 followed
the first master plan for the property at Schillerpark. Its
location at the recently opened first public park of Berlin
was very attractive from the point of view of urban devel-
opment. The design envisaged block margin buildings
forming closed green courtyards without wings and cross
buildings. This was in line with the ideas of reformed
housing development of that time.

In 1924 Bruno Taut was ordered to design a new master
plan for the estate. He was linked with Berliner Spar- und
Bauverein since his commitment for Gartenstadt
Falkenberg. Under the new social conditions and shortly
before the new construction reform ordinance for Berlin
came into force (on 1st December 1925) this was the first
time that it was possible in Berlin to erect an estate for
social housing on the basis of the urban development
ideas of neues bauen and with the finance of the recently
introduced support programme of the Berlin housing
welfare society.

Until September of the same year Taut presented two
draft master plans, however, they were not approved by
the construction authorities since he wanted to erect rib-
bon buildings. The final proposal which followed envis-
aged four semi-open blocks between Dubliner Straße and
Barfusstraße which also required special approval by the
authorities. The foundation stone for the first phase was
laid in December 1924 and the works for this phase were
finished in 1926. With the completion of the second
phase in 1928 two squares between Dubliner Straße and
Oxforder Straße were framed and inside them were cre-
ated green courtyards. In contrast to them the third phase
of 1929–30 remained incomplete with only four ribbons
at block margins. This large building site East of Oxforder
Straße was not divided as Taut had proposed. It was fi-
nally complemented by ribbon buildings designed by
Hans Hoffmann in 1953–57.

The completed houses provided 303 flats with sizes rang-
ing from 1 1/2 to 4 1/2 rooms. All of them had bathrooms
and loggias and the latest built flats also had central heat-
ing. In 1930 a laundry and a kindergarten were installed
in one of the blocks of flats. Food was available in a coop-
erative shop. Most of the tenants were members of the
social democratic party and of trade unions. This is no surprise for those who know that especially the flats of the third phase were reserved for members of the building workers and metal workers unions.

Initially also the construction services and execution of the construction were carried out by a working group consisting of trade union and cooperative representatives. The cooperative “Berliner Spar- und Bauverein” acted as client and GEHAG “Gemeinnützige Heimstätten-, Spar- und Bau-Aktiengesellschaft” (non-profit housing, savings and construction shareholding company) which only recently had been founded as subsidiary of DEWOG (Deutsche Wohnungsfürsorge A.G. (German housing welfare shareholding company)) by the trade unions took over the construction services. One year later it withdrew from the association. In consequence of this the Spar- und Bauverein took over full control over the execution of the project. Meanwhile Bruno Taut had become chief architect of GEHAG, yet, he remained the designing architect also for the following development phases.

During the Second World War small parts of the estate were damaged and rebuilt in the early 1950s. The house at the corner of Bristolstraße (number 1) with Dublinsider Straße had been almost completely destroyed and was rebuilt by Bruno Taut’s brother Max Taut. He rebuilt it almost as it had been. The only change which he made was that he added a full fledged jamb storey.

In 1954 it became possible to densify phase III after the street cutting diagonally into it had been cancelled. Hans Hoffmann, architect and executive member of Berliner Bau- und Wohnungsgenossenschaft von 1892 complemented the blocks around the residential buildings of Bristolstraße 25/27 and Corker Straße 3/7 as well as 19/23 and in the garden courtyard he erected the three ribbons of Bristolstraße 17 A–E, 19 A–E and 23 A–E. In contrast to the sections erected in the 1920s where Bruno Taut had been the main designer for the outdoor facilities these were now designed in cooperation with the garden architect Walter Rossow. Hoffmann’s complementary buildings completed Taut’s third project phase southeast of Oxforder Straße. The rehabilitation works for conserving the monuments designed by Taut and Hoffmann began in 1991 and continue to date.
Großsiedlung Britz (Hufeisensiedlung)

In winter 1924 the city of Berlin decided to erect the first large housing estate using finance acquired by the mortgage servicing tax. Still in the same year GEHAG bought part of the manor of Britz for implementing the first housing estate project.

This project was initiated and promoted by Martin Wagner who played a central role in communal housing welfare after the war. He developed a model of joint work of trade unions and cooperatives which included the founding of GEHAG ("Gemeinnützige Heimstätten-Spar- und Bau-AG" (Non-profit housing savings and building shareholding company) in 1924 and of social construction enterprises called Bauhütte. The tasks of GEHAG consisted in carrying out the construction services (design, planning and control). GEHAG ran its own architects' office. Bruno Taut was its art director. Like his friend Martin Wagner he had gathered lots of experience in housing development already before the war. Until Wagner left GEHAG in 1926 – he became the new Berlin urban development councillor – Wagner cooperated with Taut in the architectural and urban development design works for the GEHAG housing estate at Britz. The project at Britz was to be the first large project of the social construction organisation created by Wagner: GEHAG acted as client, Berliner Bauhütte was employed for executing the works and the architects were Taut, Wagner and Leberecht Migge – a garden architect with rich experience in residential development.

Migge designed both the public and the private outdoor facilities and dealt with the serial design of tenants’ gardens as well as with designing outdoor facilities for large housing estates. However, since an agreement which was signed in connection with the sale of the land by Berlin to GEHAG stipulated that the public gardens department of Neukölln was responsible for designing the green spaces Ottokar Wagler, at that time head of this department, produced new designs. To an extent he based them on Leberecht Migge's designs but parts of them presented independent solutions.

According to a master plan produced by the urban development department the project area was divided in two parts by a bent access road - the Green Ring, now Fritz-Reuter-Allee: the western part had been given to GEHAG for development and upon intervention by the conservative parties of the Berlin government the eastern part was given to DeGeWo (Deutsche Gesellschaft zur Förderung des Wohnungsbaus (German society for promoting housing construction). Each of the two societies was to erect 1000 flats in buildings with three storeys at the margin and single-family houses with two storeys in the interior of the estate. DeGeWo built its part in 1925–27 on the basis of designs by the architects Engelmann & Fangmeyer. Entirely different ideas of architecture and urban development oppose each other in these two parts and reflect the ideological contradictions of the Weimar Republic. Another example for these contradictory ideas is the GEHAG housing estate Am Fischtal in the district of Zehlendorf.
Both clients established own master plans which were both determined by the existing glacial ponds. On the GEHAG area was built in 1925–27 the significant core of the Britz housing estate with the horseshoe-shaped ribbon around one of the ponds that gave it its name. The core comprised two construction phases between Parchimer Allee and Stavenhagener Straße with a total of 1027 flats. Nearly half of them were built as single-family houses. The long block at Stavenhagener Straße was designed by Martin Wagner who was probably also involved in designing the ribbon along Fritz-Reuter-Allee and some of the single-family houses until he left in 1926.

Phases III to V with only blocks of flats were built in 1927–29 far away from the horseshoe along Buschkrugallee and Parchimer Allee. The sixth phase with again a mix of single-family houses and multi-storey blocks of flats was built in 1929–30 and continued the development of the two sections south of Parchimer Allee. The new phases of development reflect the economic problems of the late 20s. During the early phases the allocated parcels were still quite generous but as from 1926 they became ever smaller. In consequence of this the last phase – built in 1930 – shows relatively closely packed ribbons without much space for squares and roads. Another result is that Taut’s visionary extension which was to follow phase six could not be erected. He had designed it as an independent garden town with 2000 flats following the model of the satellite town by Ebenezer Howard. Thus, Britz did not acquire a homogeneous housing estate image. We find now three large separate housing estate spaces.

Within less than five years had been built a residential estate with 1963 flats for more than 5000 people. At Britz no new building material or modern technologies like prefabricated elements had been used. The point had rather been to reduce costs for conventional construction by restricting the design to a small number of ground plan types with standardised elements and to achieve a perfect coordination of the construction works by strict organisation and the use of modern machines. Due to the construction costs and the increased mortgage rates it was not possible to fulfil the original social intention of creating housing for the proletariat. Mostly clerks, public servants and craftsmen moved into the flats. For all that it was the first time that under difficult social and economic conditions a large-scale project of trade union housing welfare following the model of neues bauen had been implemented. It could now be presented as a counter-model to state and privately financed development projects and it fulfilled a model role for future communal projects.

In 1932 GEHAG started to build phase VII east of Fritz-Reuter-Allee and south of Parchimer Allee. This time Taut was not involved. The emergency decrees by Brüning forced them to build only tiny flats with 1 or 2 rooms. For balancing this the wide distances between the ribbons which were completed in 1933 offered room for tenants’ gardens so that they could produce some food. Since the estate was far away from any industry and from the city centre it suffered only little damage during the war. Only the building at the corner of Buschkrugallee (numbers...
245–247) with Grüner Weg (numbers 32–34) had to be rebuilt completely. A renewal programme for maintaining the monument has been started in 1984. It continues to date and has covered a large part of the Hufeisensiedlung up to now. In 2000 began the privatisation of the single-family houses in the housing estate.

Wohnstadt Carl Legien

"Wohnstadt Carl Legien" (1929 until 1930) is one of the last large trade union and cooperative housing estates built under the leadership of the Berlin urban development councillor Martin Wagner before the emergency decrees by Brüning lead in 1931 to the abolishment of all state grants. The client for whom this estate for approximately 4000 people was erected was "Gemeinnützige Heimstätten Spar- und Bau-Aktiengesellschaft" GEHAG. Already when it was built the estate was named after the chairman of Allgemeiner Deutscher Gewerkschaftsbund (general German trade union confederation) (ADGB). Its architects were Bruno Taut and Franz Hillinger, head of the design office of GEHAG. Later both stated that the design works began in 1925 although GEHAG bought the 13.5 ha of land only in 1929 and the earliest known master plans are dated 1928. When GEHAG bought it there were no buildings on the land. It was covered by allotment gardens and huts. The area was called "Bötzow premises" and was located at Carmen-Sylvia-Straße (today Erich-Weinert-Straße).

Certainly GEHAG had chosen the name of “Wohnstadt” (residential town) for a particular purpose since the property was located in the city’s centre in the North of the densely populated tenement house district of Prenzlauer Berg near the commuter railway ring. Thus it was completely different from the Hufeisensiedlung at Britz and the forest housing estate at Zehlendorf. GEHAG and the architects were facing the task of balancing the high property price by densely packed flats and a maximum use of the available area while fulfilling the requirements of the reformist models of neues bauen. The situation was improved by the fact that the new Berlin zoning ordinance permitted buildings with up to five storeys to be erected within the city. Most of the roads existed already.

Three development phases were planned but only the first and the second phases could be implemented until 1930. The third phase with 400 flats which was planned for the adjacent area in the North could not be built. The estate got a total of 1149 flats with 1 1/2 or up to 4 1/2 rooms. More than 80 % were very small flats with up to two rooms. In accordance with the guidelines of the housing welfare society which supported the project with mortgage money all flats in the four- and five-storied houses with duplex flats had a small corridor, a bathroom with WC, a kitchen, and a generous loggia or balcony.

The demand for these flats was enormous although not all of them had central heating and hot water supply provided by the estate’s own heating plant in the southern courtyard between Gubitzstraße and Sodtkestraße. The carefully planned infrastructure included a central laundry for each development phase. The larger laundry was
combined with the heating plant and accommodated in a T-shaped complex. The shops for satisfying the daily needs were concentrated along Erich-Weinert-Straße which is a wide main street with greenery crossing the estate in East-West-direction. The shops were accommodated in the ends of the block wings or respectively arranged as a bracket-like single-storey line including a restaurant and café which connects the two residential cross bar buildings between Gubitzstraße and Sodtkestraße. Initially Taut had planned similar connecting pavilions, roofed passages with shops, in front of the other blocks which are open towards Erich-Weinert-Straße. For aesthetic and urban development reasons he withdrew this idea later – these buildings would have disturbed the spatial connections across the street.

Initially two thirds of the tenants were workers and one third clerks and public servants. During Nazi rule the estate was renamed “Wohnstadt Flandern”. Its architecture was now considered to be a symbol of left-wing treacherous convictions. Yet, the buildings were not altered. The Second World War did not cause major damage, either. Only the small laundry and some houses at Trachtenbrodtstraße (numbers 22–34) were partially destroyed.

After the division of the city GEHAG lost its properties in the eastern Berlin districts. The estate became property of the municipal housing administration. After reunification GEHAG got the houses back and in the mid 1990s it started the refurbishment of the monuments. Today Wohnstadt Carl Legien is property of BauBeCon Wohnen GmbH. This company is located at Hannover. Until 2004 it had modernised and restored the remaining houses and outdoor facilities in line with the requirements for maintaining monuments. Only a laundry building from the period when the estate was built still has to undergo fundamental refurbishment.

Weiße Stadt

When the income from the mortgage servicing tax decreased in the late 1920s urban development councillor Martin Wagner initiated a special housing fund comprising 15 million Reichsmark for building 2080 flats in the district of Reinickendorf at Schillerpromenade (today Aroser Allee) and Siemensstadt. For the first time the city financed the building of both large housing estates with current budget means and provided thus the basis for experimental design and construction free from the conditions connected with the mortgages based on the mortgage servicing tax. Both projects got an equal share in the grants and thus also equal numbers of flats were to be built – if possible exclusively in multi-storied ribbon buildings.

On both sides of Aroser Allee south of the Reinickendorf village green the so-called “Schweizer Viertel” (Swiss quarter) was available. It was a sparsely built up property where the village of Reinickendorf had provided servicing already before the war. For the Reinickendorf project Wagner created a working group of several architects just as he had done for Siemensstadt and each of the architects was responsible for an individual phase of develop-
The city-owned “Gemeinnützige Heimstätten-gesellschaft “Primus” mbH” (non-profit housing society with limited liability) was responsible for executing the project. The architects Otto Rudolf Salvisberg, Bruno Ahrends and Wilhelm Brüning, the architect and architecture journalist Friedrich Paulsen and the garden architect Ludwig Lesser cooperated for the Reinickendorf project. Salvisberg had some experience in developing residential estates and was also responsible for designing the urban development plan. Paulsen was invited because of his special knowledge on economical and rational methods of construction. In developing his master plan Salvisberg had to conserve the existing road network of the Swiss quarter since “Primus” would have had to pay all costs for changes or new roads. In 1931, after three years of construction works for completing the two phases of development the last of the 1268 flats were ready for tenants to move in.

The equipment of the estate with communal facilities and shops for satisfying the daily needs was comprehensive and exemplary. A central heating plant supplied heat and hot water for all flats. Two central mechanised laundries, 24 shops, a café, a children’s home and a medical practice demonstrate the desire of Martin Wagner and the architects to introduce social reforms.

Soon after it was completed the new estate was named “Weiße Stadt” because of the bright white façades. Individual houses of it were destroyed during the war. This was probably due to the fact that it is close to industrial estates at Alt-Reinickendorf. In 1949 through 1954 the houses were rebuilt and the estate underwent thorough refurbishment re-establishing the original state. Wilhelm Büning acted as adviser for these works. A renewal programme for maintaining the monument has been started in 1982. It continues to date and has already covered a large part of the Weiße Stadt. Several years ago started the privatisation of the rented flats.

Großsiedlung Siemensstadt (Ringsiedlung)

The estate was built on ca. 14 ha of the park Jungfernheide where trees had stood before. The area was joined with Berlin in 1920 and since that time it is characterised by the border between the two former towns of Spandau and Charlottenburg which crosses it. In the South the industrial and residential areas of Siemensstadt expanded. The nature and recreation resort of Jungfernheide borders it in the North and the “Siemens railway line” opened in 1929 crosses the site on an elevated track. All this provided for an optimum infrastructure for a large residential estate. As for the Reinickendorf large residential estate Wagner established a working group for designing the urban development plan and architecture. He managed to employ members of the vanguard of neues bauen: Hans Scharoun, Walter Gropius, Hugo Häring, Fred Forbat, Otto Bartning and Paul Rudolf Henning. Except Henning and Forbat they belonged to the architects’ association “Der Ring” (the ring) which later gave the estate its name. However, with the exception of Walter Gropius and Hugo Häring none of the involved architects had sufficient experience in residential development. The engineer Max Mengeringshausen was employed as consultant for technical house installations. He assured that the kitchens...
and bathrooms were positioned rationally and that the house installations were arranged economically. Wagner completed the team excellently by choosing for it Leberecht Migge, the leading garden architect in modern residential development of that time.

The general construction services were provided by “Gemeinnützige Baugesellschaft Berlin-Heerstraße mbH” (non-profit limited liability building society Berlin-Heerstraße) which was owned by the city. In 1931, after three years of construction works for completing phases I and II of development the last of the 1,370 flats were ready for tenants to move in. Since people in Berlin demanded cheap very small flats the estate has a rather high proportion of single-room apartments or apartments with a maximum of 2 1/2 rooms (90 %). Yet, since the municipality provided finance for this project at Siemensstadt just as for that of Reinickendorf the architects could experiment with various ground plans. They tried combined kitchen and living rooms, apartment-like structures and variable ground plans. Together with the last development phase (Siemensstadt III) which remained incomplete and consisted of the two ribbon buildings by Henning built in 1933–34 at Heckerdamm (numbers 292–293) had been erected a modern residential estate for 5,000 people. It had a central heating plant, a central laundry, a school, playgrounds and shops.

The school at Jungfernheideweg 32/48 was built in 1930–31 by the civil engineering department of the district of Charlottenburg. Its location west of the ribbon buildings by Henning and north of the buildings designed by Häring had already been defined in Scharoun’s first urban development plan. Walter Helmcke designed a duplex primary school with two single-storey wings. On both sides of them were attached pavilions. The wings are connected by a higher cross bar building. Only the southern wing of the proposed school complex could be completed. The then 13th primary school was considered to be Berlin’s first school built with the modern pavilion system. When the weather was fine the classes were held outdoors. The building was extended already in 1933–34. It was severely damaged during the Second World War. The repair and reconstruction works in the housing estate were completed in 1955. After reconstruction had been completed of the houses at Goebelstraße 21–25 which had been damaged during the war (1951–52) the eastern end of the ribbon designed by Bartning was extended by the houses Bartningzeile numbers 11–19 in 1955–56. Approximately at the same time was built the final head building at Goebelstraße 1–9 up to Heilmannring. Hans Scharoun had designed it as gallery block. The flats built with social housing finance in the 50s are small (with 2 or 2 1/2 rooms).

A renewal programme for maintaining the monument has been started in 1982. It continues to date and has already covered a large part of Siemensstadt.
3. JUSTIFICATION FOR INSCRIPTION
The six Berlin estates are examples of the paradigm shift in European housing construction, since they are an expression of a broad housing reform movement and, as such, made a decisive contribution to improving housing and living conditions in Berlin. Thanks to their exemplary character, their influence was felt all over Europe. With modern flats with bathrooms, kitchens and sunny balconies in houses with spacious recreation spaces and playgrounds and without multiple courtyards and wings, these housing estates set a hygienic and social standard far removed from Berlin's inhumane tenement system of densely packed blocks of flats. Shortly before the First World War, ninety per cent of the Berlin population lived in tenements with four or five storeys. Nearly half of the flats were located in rear buildings and nine out of ten flats did not have a bathroom.

During the Weimar Republic, the worsening shortage of housing and the collapse of privately financed housing development made housing construction a social policy challenge also in Berlin. With political support from Germany's Social Democrats and from the trade unions, trade union cooperatives and municipal and other non-profit societies began financing new social housing in Berlin.

The construction of housing estates is an urban planning and architectural response to social problems and housing policy issues arising in regions with high population density. Novel housing estate forms developed in particular during the first decades of the 20th century in big European cities and metropolises. Building authorities, architects and urban planners often cooperated on these new housing estates, which created better living conditions for the poorer strata of the population in particular. Their quality of urban development, architecture and landscape design, as well as the housing standards that were developed during this period, served as a guideline for the social housing constructed after the end of the Second World War, and they retained their exemplary function during the entire 20th century.

Berlin was a city whose population had multiplied in just a few decades as a result of industrialisation, and into the 1920s it was characterised by a shortage of housing and miserable living conditions in hopelessly overcrowded tenements. In this situation, the housing reform movement was able to generate initial momentum mainly in housing projects organised on a cooperative basis. Gartenstadt Falkenberg was built already before the First World War. It was a housing estate project that aimed at creating a new way of living, and with its standardised house forms and ground plans for flats it served as an important model for others.

In the 1920s, renowned designers, municipal authorities and housing societies in Berlin developed social housing construction to a level that was outstanding by international standards. The creation of social policy, economic, architectural and legislative instruments made it possible to implement hundreds of development projects. Housing construction had previously been left almost entirely to speculators. Proven experts now approached it systematically, in the interest of benefiting the public and on the basis of the most advanced knowledge of architecture, urban development, hygiene and social science.

The nominated housing estates were part of a broadly based housing construction programme in Berlin that led to the building of 140,000 flats within just a few years. This mass housing development was closely linked to new concepts for the spatial and social structure of the city. Martin Wagner, the city's urban development councillor at the time, developed a modern urban planning concept based on a model of functional separation. This model was to contribute to breaking up the contrast between city and countryside, a contrast that was especially marked in Berlin's case. In the city itself dense residential quarters with open structures of multi-storied buildings dotted with green spaces filled gaps in the urban structure (Siedlung Schillerpark, Wohnstadt Carl Legien), while large housing housing estates with spacious green spaces were embedded in the landscape of Mark Brandenburg on the outskirts of the city (Hufeisensiedlung Britz, Weiße Stadt, Großsiedlung Siemensstadt).

(II) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design

(IV) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history

These Berlin housing estates are extraordinary examples of the housing developments built during the early decades of the 20th century and were models for housing and living in the big cities of the modern industrial society.

Internationally renowned architects like Bruno Taut, Walter Gropius, Otto Rudolf Salvisberg and Hans Scharoun developed new and exemplary housing estate structures. These not only facilitated the provision of healthy flats with attractive amenities, but also offered a basis for new forms of housing and living. These housing estates were designed with community facilities offering an exemplary social and service infrastructure and a wide range of communal functional and event spaces, spanning models like the experiment of a cooperative-based community, Taut's “outdoor living space” and Scharoun's
concept of “neighbourhood”. The participating architects developed new types of ground plans for houses and flats that responded to modern demands on housing.

The best of the housing estates built during this period produced excellent solutions to the problem of designing housing for many people living together in limited space. They combined extraordinary architectural designs and diversity of housing estate structure and building form with intelligent integration into urban structures in order to develop useful and varied flats in healthy environments. Light, air and sunshine were keywords. They also provided guidelines for the design of the housing estates’ communal facilities, such as playgrounds, spacious outdoor facilities and tenants’ gardens. Renowned garden architects like Ludwig Lesser and Leberecht Migge ensured that these reformist ideas were implemented in an outstanding way.

3. B Proposed Statement of Outstanding Universal Value

The social housing settlements built in Berlin during the 1920s are a heritage that unites all the positive achievements of early modernism. They represent a period in which Berlin was respected worldwide for its political, social, technical and cultural progressiveness. This creative environment facilitated the development of housing estates that can be regarded both as works of art and as health and social policy achievements. When the best architects and garden architects of Germany became involved, housing estates became the model and actual instrument for the development of architecture. Their influence could be felt even decades later.

The political and economic transformations in Germany after it had lost the First World War made the development of housing estates the subject of social policy. After Berlin’s incorporation of surrounding communities to form one large city in 1920, the Social Democrats acquired ever more influence on municipal urban development. The new trade union and cooperative building societies like GEHAG, which were their close allies, propagated the modern social housing development. Greater Berlin with its spacious undeveloped properties became the site of experiments in developing modern flats for the people. When the architect and Social Democrat Martin Wagner was elected urban development councillor in 1926, he embodied both movements at the same time: the political movement and that of the reformist experts.

The Berlin housing estates, which had attracted the attention of experts and of the specialised press even when they were first built, acquired a symbolic value also in the discourse on the history of 20th century architecture: along with Bauhaus and the buildings of Neues Frankfurt, they appeared in all relevant publications as exemplary achievements of modernist architecture and urban development. However, they are not just part of history. They suffered little damage during the Second World War and from improper renovation and thus are still standing today, surrounded by spacious gardens and green areas: attractive residential areas whose tenants often pass on leases from one generation to the next.

A new concept of spatial and social structure was implemented in Berlin with these housing estates. Most but not all of them were erected outside the city that was laid out in James Hobrecht’s master plan of 1862. No longer were the city’s less prosperous inhabitants to be hidden away in the smaller, less healthy, worse flats in the basements, wings, cross buildings, attics and overcrowded tenements of the densely built-up city centre. They were to get visible space for themselves both for the privacy of their families and for their public representation as a social class, as well as for presenting the housing estate communities.

In their design work, the imagination of the architects aimed both at developing functional floor plans for flats that would promote health and family life and at arranging the buildings in larger urban structures, while always keeping in mind the points of the compass and insolation. Common spaces were to offer “Aussenwohnräume” (outdoor living spaces) (Taut), which would invite them to spend time outside enjoying the sunlight and fresh air and, last but not least, would help fight tuberculosis, still rampant in Berlin at the time. One of these outdoor living spaces formed by a particularly impressive and powerful...
Fig. 63: Brochure for the exhibition on the GEHAG-housing estates on the Bauwelt model exhibition, 1931
urban structure has become the symbol of the housing estate movement: the horseshoe, centre of the Hufeisen-siedlung built by Bruno Taut and Martin Wagner in Britz from 1925 to 1930.

Choosing between the many larger and smaller Berlin housing estates and residential estates is not easy. Many of them have been preserved, most of them are attractive, and all of them are different. Some of them have a dense urban structure, others are open and dotted with green spaces, some are based on a conservative artistic design in the spirit of the Heimatschutzbewegung (movement for the preservation of regional culture), others have a more expressionist style. The choice was made mainly on the basis of the following four criteria:

The particular significance of the architectural design and of the urban structure from the point of view of the arts

- The good condition of the original structure
- The social policy intentions of the developers
- International awareness and recognition

It is certainly no coincidence that most of the housing estates chosen are works by Bruno Taut. Like no one else's, his name is linked with the heyday of social housing construction in Berlin during the years of the Weimar Republic. His cooperation with the Berlin urban development councillor Martin Wagner yielded exemplary successes. Four housing estates were chosen from his rich oeuvre in Berlin. They are all different from each other, and their differences illustrate the stages of Taut's artistic development as an architect and urban developer:

- Gartenstadt Falkenberg (1913–1916), developed by a building cooperative as a model for reforming housing estates and living, which emerged as the result of criticism of big city life and the Berlin tenement house system
- Siedlung Schillerpark (1924–1930), one of the first urban residential projects built after the end of the First World War in Berlin; an ideal combination of all the features of the new social housing developments that also embodies the model of a modern culture of urban life
- Großsiedlung Britz (Hufeisensiedlung) (1925–1930), the first large German housing estate built after the end of the First World War and the years of inflation; aimed at providing humane, healthy and hygienic living conditions also for low-income groups by offering various forms of housing

Weiße Stadt (1928–1930), which, as the most urban and most compact large housing estate in Berlin, manages – despite its density – to create a housing environment that appears green and open, thanks to a building design opened up to light and air in an exemplary way

The following two large housing estates were erected at the same time and represent other approaches to design and urban development:

- Weiße Stadt (1929–1931), which was built as a large housing estate with an urban character, consisting of ribbon buildings with green spaces in between; anything but monotonous, free and abstract spatial designs for modernist housing estates were tried out here
- Großsiedlung Siemensstadt (Ringsiedlung), 1929–1931, a functional housing estate pointing the way to international modern urban development and thus anticipating the model of a spacious, structured city dotted by green spaces

Weiße Stadt (1929–1931) was designed by the Swiss architect Otto Rudolf Salvisberg, who was also responsible for the master plan, and the two Berlin architects Bruno Ahrendts and Wilhelm Bünning. Siemensstadt was mainly designed by Hans Scharoun, who also did the master plan. Walter Gropius, Hugo Häring, Otto Bartning, Fred Forbat, Paul Rudolf Henning and Hans Scharoun himself designed the buildings. Both housing estates have become symbols of international modernist design in Berlin and beyond. Not only do they represent a paradigm shift in architecture
and urban development, they also reflect a change in social structures, which was expressed by the development of mono-functional satellite housing estates with a clear division between spaces for living and working.

This meant that leading architects of classical modernism were involved in developing housing estates in Berlin. Bruno Taut’s four housing estates, Weiße Stadt, and Siemensstadt reflect the development from garden town ideas to cityscapes in Hans Scharoun’s spirit. Each of the housing estates represents another stage, another and very specific variation within the broad range of urban and architectural design possibilities. All of them achieved international renown, were discussed by the international specialised press, and were frequently visited even at that early stage by interested experts.

The fact that other high quality estates – for instance by the architects Mebes & Emmerich, Erwin Gutkind and Jean Krämer – have not been included results from the idea that the chosen examples should stand for the entirety. Waldsiedlung (Forest housing estate) which is also called Onkel-Tom-Siedlung (Uncle Tom housing estate) by Bruno Taut, Otto Rudolf Salvisberg and Hugo Häring has not been nominated either. When the “housing estates of Berlin Modern Age” were selected for entry in the provisional list of the Federal Republic of Germany the appearance of Waldsiedlung was less true to the original than it is now. This impairment of authenticity referred mainly to the majority of the privately owned 809 row houses which had been sold to private owners already shortly after they had been built. Moreover Waldsiedlung with its location right in the middle of Zehlendorf villas does not reflect the social intention of a “working class housing estate” as much as it is the case with the Hufeisensiedlung at Britz or Wohnstadt Carl Legien. In addition to this it does not represent a higher stage in urban development and architecture in comparison with the slightly older Hufeisensiedlung at Britz.

The individual housing estates

Gartenstadt Falkenberg

Among Europe’s garden towns that at Falkenberg is the most colourful one. It was built in 1913–1916 as an early work by the architect Bruno Taut. For the first time he used here full, bright colours: red, green, blue, yellow and also brown, ochre, black and white. He used them in combinations in which no one had dared using them to that date for painting the outside of residential buildings. In this way Taut gave his very own artistic expression to the social and urban development model of the garden town which had been taken over from England. The purpose of Deutsche Gartenstadtgesellschaft (German garden town society) which had initiated the founding of the Falkenberg construction cooperative was to further the dissemination of the garden town ideas. “We must accept colour as absolutely equal to form … Don’t despise this
marvellous gift of god, the pure, unadulterated colour.”
(B. Taut, Architektonisches zum Siedlungswerk. In: Der Siedler (1) 1918, p. 255)

Colour in the intensity in which Taut used it is supposed to stimulate the senses of the inhabitants moving into the small but intelligently designed row houses and flats. Colour is cheaper than even the simplest plastic decoration and the colourful painting of house walls, cornices and doors was to be not only an expression but also a means of fundamentally reforming the habits of living and perceiving. The Berliners first did not understand this new provocative blaze of colour and called the estate “paint box housing estate”. Later they got used to its colourfulness and kept the name.

Two clearly different residential complexes were erected in three phases: 1913, 1914–15 and 1916. Originally they were to be parts of a much larger development which could not be built. Taut used patterns of urban development which are familiar from other garden town developments: the closed courtyard (Akazienhof) and the bent residential street following the slope of a hill (Gartenstadtweg). However, we find here already the finely tuned urban structure of axes shifted so that it is hardly noticeable and the integration of the road space by means of building lines which create spaces. Taut defined this later as “Aussenwohnraum” (outdoor living space). Akazienhof itself seems to be a housing estate interior which was to reflect the cooperative community principle just like the horseshoe of the Großsiedlung Britz did later.

Houses and ground plans are standardised for saving cost and rationalise construction. The residential units are small, the rooms are smaller than in the average flats in the tenement houses in the inner-city areas but here at Falkenberg each of the flats has a kitchen, a bathroom and a garden. Only the difference in colour marks the limits of the residential units. At the multiple dwellings Taut marked entrance doors and wall sections with abstract geometrical patterns in colours which stood out in lively contrast.

At that time it was quite remarkable that the renowned garden architect Ludwig Lesser was employed for designing the gardens and public outdoor facilities. By means of green spaces accompanying the streets – avenues, hedges and rows of trees – Lesser managed to highlight the spaces created by architecture at Akazienhof and Gartenstadtweg. Trellises at the façades bearing fruit trees and climbers make the colours change with the seasons.

The gardens are an essential element of the particular Falkenberg housing estate image. Lesser was a pioneer in designing small gardens (allotment gardens). The close cooperation with Bruno Taut ensured that for the first time the allotment gardens were treated as very important and therefore included in the master plan. Lesser produced lists proposing plants to be planted in the gar-
dens for partial self-sufficiency in the sense of the garden town idea and he tried to influence the garden design and use by the cooperative members by holding lectures. Although the sizes of the gardens varied and they were originally designed and created as pure kitchen gardens they still fulfilled the claim of providing a counterweight to the unbalanced work of the inhabitants and making a modest contribution to their self-sufficiency in food supply. For making it easy to step outside the living rooms and kitchens are usually located on ground floor level.

With its mix of garden town patterns and innovative composition of colour and space Gartenstadt Falkenberg is a unique example for the wealth of variation in reform housing development and the interest in experimenting of architects and clients shortly before 1914. With the completely unconventional choice of colours and the expressly non-tectonic picturesque combination of colours the houses of Gartenstadt Falkenberg are close to the contemporary expressionist paintings in which painters like Marc, Kandinsky or Nolde used brilliant “false” colours – blue riders and horses, red and green cows, yellow figures of Christ. The closest analogy is a painting by Kandinsky – “Dame in Moskau” (Lady in Moscow) from 1912 – which shows a complex dream vision in which two rows of low houses in “false” colours and each of them with a different colour frame the middle ground.

Fig. 67: Gartenstadt Falkenberg, trellises at double house
Am Falkenberg 118, 2005

The Falkenberg construction cooperative had been founded by initiative of “Deutsche Gartenstadtgesellschaft” which was the core and ideological centre of the garden town movement and whose protagonists Hans and Bernhard Kampffmeyer, Adolf Otto, Hermann Salomon and Albert Kohn were the executive members of the cooperative. In line with the bourgeois moderate reform ideas of the garden town movement the builders of Falkenberg did not intend at all to erect it only for people from the low income groups. Their model was a community in which people lived together without class divisions on a cooperative basis and in which ideally the inhabitants of the housing estate would produce their living in cooperation of trades, agriculture and industry. This required housing facilities with a variety of dimensions and ground plans so that everyone would have a space for living in line with his/her needs and means. At Gartenstadt Falkenberg its founders wanted present as much variation as possible of ground plans and small houses with gardens so that the estate could become a kind of sample housing estate representing the garden town idea and advertising for it.

Siedlung Schillerpark

The Siedlung Schillerpark was created by Bruno Taut in three phases in 1924–30. Its very structured brick façades reflect the influence of the Amsterdam school on Bruno Taut’s architecture: the building front at Bristolstraße which is a favourite for photos of the estate shows both expressive and functional architecture with more wealth of detail than his later designs.

Schillerpark is the first cooperative large urban housing estate in Berlin which unites in itself nearly ideally all the typical features of neues bauen. The builder “Berliner Spar- und Bauverein” (Berlin savings and construction association) together with their architect Bruno Taut were pioneers of the reform housing. Here, within this Wedding housing estate they tested for the first time the model of a modern urban housing estate under the conditions of the new Berlin building regulations and the grant system of the mortgage servicing tax. The unconventional flat-roofed buildings were to represent the „New Berlin“ as it had been proclaimed by urban development counsellor Martin Wagner.

At Schillerpark Taut transferred the achievements of reform housing development created since 1892 for the Berlin construction associations and cooperatives by Alfred Messel, Paul Koll, Erich Köhn, Paul Mebes and others to a new stage of modernisation of urban development, types of ground plans and styles. He did preserve the block margin pattern of the traditional Berlin building regulation to the extent of arranging the buildings parallel to the street and creating large courtyards inside the blocks. However, these blocks are open at their joints and the ribbons of buildings at the block margin are ar-
ranged in parallel pairs: two in North-South direction with entrances in the West and balconies in the East and two in West-East direction with entrances in the North and balconies in the South. With this systematic integration of block margin and ribbon patterns Taut is innovative and yet he continues the tradition of architectural reform.

For the Schillerpark estate Taut planned flats for various income levels with uniform standard and various sizes with dedicated bathroom and kitchens and spacious loggias and balconies orientated towards the sun. The house façades reflect the ground plans. He does not treat the street front façades with preference as it was done in the stone cities of the 19th century. The buildings appear as bodies for walking around. All their sides are equally beautiful. When the foundation stone was laid in 1924 Taut proclaimed the beginning of a new era in rental housing development with the slogan “For a new popular flat – for a new architecture of Berlin”. Schillerpark became the model for social residential development of the 1920s in Berlin.

The clear design of the green spaces and their subdivision into functional spaces harmonises very well with the rational architecture of the houses. As in all housing estates which were designed by Taut the public and semi-public areas are an integral part of the holistic social concept of space. Yards and other green spaces surrounded by buildings do not only support the identification and solidarity of the inhabitants with their housing estates. They are also an essential part of the outdoor living space as defined by Taut. The result is a characteristic type of internal structure of the housing estates with a close integration of indoor and outdoor living spaces. This is shown by axial views and mainly by loggias and balconies in front of the main living rooms looking out at the green spaces. The estate is an exemplary presentation of a novel housing estate image with integrated green spaces as we find it again in the residential developments of the 1950s.

Hans Hoffmann, chief architect of the construction cooperative, introduced a new model – that of “transparent living” – with his buildings which were built after the war for complementing the incomplete third phase of the development. Hoffman created an original composition of Taut’s and his own style of architecture. Large glass panels over the entire height of the storeys, gallery-like balconies and walk-in flower windows make the façades very transparent. This is how Hoffmann defined in a contemporary way the link with outdoor living space and open space in an estate which had been so important for Taut. One of the decisive factors for this image which is very efficiently aesthetic for all its apparent economy are the staircase axes. They are embed-
ded in the walls’ fronts like glass membranes and the steel lattices reaching over several storeys increase this impression of weightlessness and transparency.

The outdoor facilities were designed by the garden architect Walter Rossow and support the image created by the finely structured architecture by Hans Hoffmann. The rhythmic change between open and closed or respectively public, semi-public and private spaces like the tenants’ gardens which can be experienced visually is characteristic for this image. The impression is supported by the use of various kinds of material and design elements like bossed walls and landscaping and mainly by a greater variety and staggering of plants.

When considering the outdoor facilities of the Siedlung Schillerpark in their entirety it is easy to discern the individual phases of their development. The strictly functional yards by Taut contrast with the design of outdoor spaces at Oxforder Straße by Hans Hoffmann and Walter Rossow with their dispersed birches and the playground which is integrated into the lawn.

**Großsiedlung Britz (Hufeisensiedlung)**

The horseshoe which is at the centre of “Großsiedlung Britz” has been virtually the symbol for Berlin residential development in the 1920s for quite a long time already. The housing estate was created in 1925–30 by Bruno Taut and Martin Wagner and it is the first German large housing estate with more than 1000 flats. Under the name of “Hufeisensiedlung” (Hufeisensiedlung) which is very easily remembered it has become the symbol for a new social form of urban development which was supposed to provide also for people with low incomes decent, healthy and humane housing.

The Hufeisensiedlung is the first model estate of GEHAG which had been founded by social-democrats and free trade unions. GEHAG (“Gemeinnützige Heimstätten-Spar- und Bau-AG” (non-profit housing savings and building shareholding company) which had a close cooperation with its chief architect Bruno Taut and which was part of the network for non-profit housing welfare initiated by Wagner had become the main developer of the model large housing estates in Berlin. With the Hufeisensiedlung they wanted to test the association of cooperative and trade union companies as a model in opposition to private developers and they wanted to show that it was more efficient than state housing programmes.

Taut and Wagner developed an extraordinarily impressive urban development plan for this estate. The buildings designed by Taut in conjunction with the open green spaces and tenants’ gardens designed by Leberecht Migge and built by Wagler have become within the 70 years since the first greenery was planted a residential land-
scape with a design quality which is unique in Europe. Here Taut was able to refine the design method which he had tested at Falkenberg: the playing with symmetry and asymmetry of groups of buildings and street spaces, the shifts of axes which can hardly be noticed and the subtle spatial alienations, the elementary use of colour for creating spaces. Yet, the novel political and organisational aspects of the cooperative large housing estate finds its powerful architectural expression mainly in the central horseshoe which determines the spatial shape. This horseshoe expresses both the belief in progress and rationalisation of neues bauen as well as the collectivity and solidarity in the cooperative model. At the open eastern side of the horseshoe Taut created a representative entrance to the housing estate with a wide sweep of stairs going down into the green space which is surrounded by the ribbon of buildings. Leberecht Migge used the existing topography and turned the glacial pond into the centre of an artistic scenery of garden architecture.

Bruno Taut and Martin Wagner tried to rationalise housing construction and thus to reduce construction costs by means of standardisation. Migge applied these modern working methods for creating the gardens. He planned largely standardised gardens for the settlers, gardens with rational design which were to be created as far as possible in serial production by means of refined methods of organising the working process. In the Hufeisensiedlung Taut was able to create a highly artistic fusion of the already existing urban development idea of the garden town and the more novel concept of the large housing estate. While the horseshoe is formed by a flat-roofed 360 meters long bent ribbon of buildings with a strictly serial ground plan representing the image of the large housing estate with landscaping the small adjacent diamond-shaped square to the West with its gable roofed row houses and the trees in its middle is a garden town motif. It is not for nothing that it is called “Hüsung”. This square is a relative of Taut’s Akazienhof at Falkenberg and you may associate it with the East German village greens.

Taut never liked dogmatic fixation and so he played with great sovereignty with the advantages and features of the garden town and the more abstract patterns of the large housing estate and in doing so he always used block margin, ribbon and row houses in such a way that they created clear separations between private, semi-public and public spaces. Where he arranged groups of row houses along the streets (for instance near the horseshoe) he places these groups alternatingly closer to the street or to the gardens, parallel or mirrored – thus creating residential streets with varying patterns. Where he arranged row houses in parallel ribbons as in the sixth development phase south of Parchimer Allee he always made one head building at the beginning of the row project into the street and green
space so that he avoids the penetrability of the flanks which is otherwise so typical for ribbon development.

Here at Britz, far away from the tenement quarters, Taut had the opportunity of implementing at a large scale his vision of open urban development mixed with green spaces. Here he fulfills the demand of his art for modernity and functionality and equally the social demand for light, air and sunshine. With the Hufeisensiedlung both Bruno Taut and Martin Wagner created their international reputation for being architects and urban planners in the 1920s who supported social reforms.

Wohnstadt Carl Legien

From among the Berlin housing estates of social housing development during the Weimar Republic “Wohnstadt Carl Legien” is the most urbane and compact one. It occupies a special position among the works by Bruno Taut. Shortly before Brüning’s emergency laws came into force in 1930 which deprived these trade union and non-profit residential developments of the necessary grants Taut was able once more to present in a programmatic way the most important innovations of modern mass housing development. Also this project was financed by GEHAG. At the margin of the inner-city district of Prenzlauer Berg and in the neighbourhood of densely packed tenements Taut proved that the principles of neues bauen also made it possible to build “urban” estates.

Here it was not possible to use an open composition as at Britz or the Waldsiedlung at Zehlendorf. In this case Taut was obliged to use the inner-city patterns of spatial structure consisting of blocks and streets which he expressly rejected. Moreover he had to do so in an area whose main structure had been defined in the master plan by Hobrecht in 1862. The particular achievement of Taut’s urban development plan is that he was able to invent a structure for the streets and blocks which provides for the inhabitants spaciousness, outdoor facilities and air with lots of green spaces despite the fact that the design is close to the spatial structures and types of the late 19th century city and also despite the fact that the economic situation required considerable density.

The axis of the large square site had already been defined: Carmen-Sylva-Straße, today’s Erich-Weinert-Straße. Taut divided the square into six very deep rectangular blocks by three narrow access roads which he placed a right angles to the axis. Long ribbons form block margins along the access roads and between them are quite wide garden spaces which are as deep as the blocks and closed at the extreme ends by cross bar buildings. Towards the middle these blocks remain open. This creates a figure of three U-shaped courtyards on either side of Erich-Weinert-Straße which is turned into a kind of boulevard by the accompanying green spaces.

This shows that Taut reverted to the older urban development pattern of block margin development but he exchanged sides and so to say put the old hierarchic tenement system upside down. The garden-like courtyards became the centres for living whereas the significance of
the narrow streets was reduced. Taut consistently arranged all living rooms with the full-width balconies or loggias in front of the rooms on the courtyard side and auxiliary rooms like bathrooms or kitchens are orientated towards the streets. This means that for securing that the living rooms are orientated towards the gardens the ground plans of the ribbons are mirrored and not sequenced.

The view of the generously dimensioned Erich-Weinert-Straße with lots of greenery and the sequence of five-storied head buildings at the end of the ribbons became the symbol for this residential estate. The rounded balconies at the corners guide the view from the street into the courtyards. The façades at the narrow sides are designed as shield walls. They are higher than the single-pitch roofs and eaves thus making them invisible. In this main view with the increased volumes and the concentration of architectural motifs on both sides of Erich-Weinert-Straße the estate gains a monumental urban quality which emanates far into its environment.

Only the north-eastern yard is closed by a single-storey ribbon of shops which have been placed in front. Otherwise the limit between the boulevard and the gardens inside the blocks is marked only by the greenery so that the inhabitants of the flats have an open view from their loggias to the street and into the opposite garden courtyard. By this means Taut created the impression of spaciousness and penetrability within the rather limited space. The small flats with their optimally organised ground plans and spacious sunny loggias became symbols for a new culture of living – an entirely new type of city flat whose qualities are convincing even today.

The design of the outdoor facilities of Wohnstadt Carl Legien was not only integrated into the urban composition of the estate or supported the impact of its architecture but it was an inseparable part of architecture. Obviously Bruno Taut transferred here to the outdoor facilities his consistent application of urban development and architectural ideas of modern residential development which he had used in designing the façades and the clear structures of the buildings. Just like he used colour for windows, entrance doors and staircases or the shapes of loggias and balconies for varying the uniform façades he created clearly structured, uniform and yet lively spaces by means of unobtrusive and minimal garden design elements (hedges with staggered heights, a small number of solitary trees and groups of robinias at the head-buildings at Erich-Weinert-Straße) within lawn carpets.

Weiße Stadt

Soon after its completion in 1931 the large estate was celebrated as symbol of modern residential development. Its original name had been Schillerpromenade but it became known as "Weiße Stadt". No matter what you called it – neues bauen or functionalism or international style – the housing estate fitted the dispute about progress in architecture as precisely as the artfully exalted sequences of images showing clear, cubic, white buildings which were published worldwide in books and journals around 1930.

Fig. 73: Weiße Stadt, gate buildings designed by Bruno Ahrends frame Aroser Allee at the southern entrance to the housing estate, 2005
Under the guidance of urban development councillor Martin Wagner worked here the Berlin architects Wilhelm Büning and Bruno Ahrends as well as their Swiss colleague Otto Rudolf Salvisberg. The outdoor facilities were designed by Ludwig Lesser.

Otto Rudolf Salvisberg’s urban development plan combines with great skill some quite traditional motifs of urban spatial structure and orientation with new and more abstract arrangements which were first introduced in residential development in the 1920s. The width and alignment of Aroser Allee were pre-defined and he designed it as a main road with accompanying block margin buildings. At its beginning he placed two buildings which are higher than the ribbons along the road and create the impression of a gate opening into the estate. He concluded the main road which has a slight but noticeable bend towards the north with a transverse building in the form of a bridge which lies across the entire width of Aroser Allee. The bridge house does not constitute the end of the estate, it rather defines its middle and is a Point de Vue in both directions. A large clock in the middle of the top floor on either side shows the time.

Reinickendorf was one of the suburban districts of Berlin which had been merged with Berlin in 1920 and it was a suitable area for the experiments of the new and social urban development as it was propagated by urban development councillor Martin Wagner and progressive architects. The development at Reinickendorf differed from those of the GEHAG-estates at Britz or Zehlendorf in as much as it was the test for a modern inner-city type of development which consisted exclusively of flats in multi-storey buildings. The small tenants’ gardens were replaced by commonly used housing estate gardens which constituted a new type – functional green spaces with places for recreation and with playgrounds.

Ludwig Lesser managed to create a structure of the outdoor facilities which harmonised with the urban development and architectural programme of the estate and fulfilled the requirements of neues bauen. By placing individual bushes or trees in the courtyards which are dominated by lawns he created open spatial structures which offer room for various uses. He thus created a functional subdivision of the spaces as well as connections between the individual parts. The exemplary creation of outdoor facilities with many common areas set benchmarks for later residential development projects.
Großsiedlung Siemensstadt (Ringsiedlung)

From the beginning the Großsiedlung Siemensstadt which was built in 1929–31 also had the function of a large-scale exhibition of architecture which was nevertheless presenting only one type of building: large ribbons which were presented in various arrangements and with varying ground plans, servicing and designs. Famous architects gained early international fame. Walter Gropius, Hugo Häring, Otto Bartning, Hans Scharoun, Fred Forbat and Paul Rudolf Henning participated in this project. The working group was headed by urban development councillor Martin Wagner who was one of the most committed supporters of rational large housing estate development. He gave each of the architects the opportunity to create models presenting his individual idea of new social development in a big city. The architects had the opportunity to test rationality and economy of erecting ribbon buildings and also organic and material design.

The master plan by Hans Scharoun constitutes a clear break with the ideas of urban development of the 19th century. His plan focuses on designing spaces and connecting indoor and outdoor spaces. He dissolves past patterns of street, block and natural space and merges these spaces to form a new unprecedented composition around the spacious central landscape designed by the garden architect Leberecht Migge.

The Großsiedlung Siemensstadt presents the model of a structured city with lots of green spaces which came to dominate urban development in Europe during the period after the Second World War. Siemensstadt is a modern cityscape in the sense of Hans Scharoun’s reconstruction concept of 1946.

The pioneering design of the outdoor facilities of Siemensstadt may also be understood as showing examples for the design principles in modern European urban development.

The outdoor facilities with their social and sanitary functions were considered to function as balance for the hard living and working conditions. The park-like design of the outdoor facilities, the creation of a central common space with recreation facilities and playgrounds and also the carefully integrated waste disposal facilities fulfil this demand. Creating a network of connected green spaces and maintaining the existing trees were main demands. Only a small part of the land was used for creating tenants’ gardens.

Leberecht Migge tried to implement a plain and rational design of the outdoor facilities by using a clear differentiation between the individual functional areas and the garden areas. By this he wanted to minimise both the cost of construction and the future maintenance cost.

Another important design element of Siemensstadt is represented by the integration of the public street spaces. The newly created outdoor facilities were spatially and functionally linked with the overall green network by having poplars planted at the most important streets.
3. C Comparative analysis (including state of conservation of similar properties)

Concepts for mass residential development in Germany and Europe

From garden towns to housing estate development during the 1920s

Since the first half of the 19th century solving the housing question had been one of the greatest social challenges in most of the European countries. This referred in particular to the rapidly growing and densifying big cities. Where in the 19th century social immiseration was greatest as a consequence of urbanisation and industrialisation started the first counter-movements and reforming activities in urban and housing development. Especially in England the first company settlements with healthier flats and social facilities soon appeared as results of initiatives of philanthropically minded entrepreneurs. A milestone of social and industrial history was the industrial settlement of New Lanark in Scotland which included several facilities for the working people – among in particular educational facilities. This settlement was erected by Robert Owen – the social reformer and owner of a cotton spinning mill. A comparable model settlement of the early industrial age is Saltaire in Yorkshire, founded in the middle of the 19th century by the textile entrepreneur Titus Salt. Other examples for English industrial settlements of this kind are Cadbury’s Bournville or Port Sunlight. In other European countries, too, were erected industrial settlements which represented noticeable progress in the living conditions of the working people. An example which illustrates this is the factory and workers village of Crespi d’Adda near Capriate San Gervasio in the Italian province of Bergamo (Lombardy). It was named after the family Crespi who owned the cotton factory and who had the village with the factory, the settlement and social facilities erected as from 1878. The settlements of New Lanark, Saltaire and Crespi d’Adda have been entered in the world heritage list of UNESCO.

The industrial housing estates which had been erected on initiative of individual entrepreneurs remained singular establishments created for improving the living conditions of the workers in the respective factories. The garden city model of Ebenezer Howard was the first to present an urban development idea in contrast to the big cities – a model which tried to overcome the disadvantages of city life. In his book “Garden cities of tomorrow” Howard presented the city embedded in green spaces which tried to merge city and nature into a holistic model of living by developing independent housing estates of reasonable size. All vitally important spheres of life (housing, working, utilities, leisure and recreation) were to be closely combined and made visible in an urban form of housing estate which was to reflect the spirit of community and social reform.

Howard’s ideas about the garden city were soon disseminated also beyond England with the founding (on his initiative) of the “Garden City Association” in 1899. In practice this resulted in the founding of garden cities like

Fig. 76: Design by Bruno Taut for Gartenstadt Falkenberg, 1913. Only Akazienhof (bottom right) was built according to this design.
Letchworth (1903), Hampstead (1907–1910) both according to plans by Barry Parker and Raymond Unwin as well as Welwyn (1920) by Louis de Soissons. However, in the end these housing estates were not real garden cities according to Howard’s definition since they got caught up in the maelstrom of big city life of London and rather turned into satellite or dormitory suburbs.

The English garden city idea found followers also in Germany. As early as in 1902 the first “Deutsche Gartenstadtgesellschaft” (German garden city society) was founded in Berlin and its members included social reformers and experts in health hygiene as well as economists and architects. Yet, the view of Deutsche Gartenstadtgesellschaft was directed more towards the housing estate at the margin of the cities – the garden suburb – than towards extending the existing cities. When choosing the garden suburb as the urban development model Deutsche Gartenstadtgesellschaft avoided from the onset the utopian claim raised by Howard’s ideal city. Many of the newly founded housing estates – for instance Hellerau near Dresden (1906–1908, architects: Tessenow, Riemerschmid, Muthesius) or Margarthenhöhe near Essen (as from 1909; architect: Georg Metzendorf) did get the name of garden city, yet, they were rather suburban housing estates according to the model of Tony Garnier’s Cité Industrielle of 1904.

Other important stimulus for reform housing development in Germany came from the building cooperative movement which gained more impetus with the law on cooperatives of 1889. Many non-profit building cooperatives were founded which were based on common ownership. In addition to the legal and economic conditions of housing the building cooperatives showed a new direction of development for housing also with respect to its architecture and the hygienic conditions.

The company housing development, the garden city movement and the building cooperatives are the roots for European housing estate development of the early 20th century. Ground plans for small flats, facilities which promote community spirit as well as social outdoor facility design were the innovations and further development of the large housing estates which were erected during the 1920s at the margin of the big cities. Among the European big cities especially Berlin became one of the centres of an ambitious, reformist housing programme which represented the state of the art of urban development, architecture and construction of that time and involved many renowned planners, designers, architects and engineers of Neues Bauen.

**Housing estate development in European cities**

After the end of the First World War the need of creating healthy and good quality housing for the broad masses was not restricted to Germany. Many countries had a similar shortage of housing and in particular those neighbouring countries which were undergoing the social transformations which followed the First World War. In many European big cities like Vienna, Amsterdam and Rotterdam were created similar housing programmes...
with a claim for social reform supported by public fund-
ing. Yet, in many respects the urban development and
architectural concepts which were created there were
more conservative than those in Berlin. Further, their
flats were relatively small and had a comparatively low
standard. In Berlin the architects were able to implement
a comparatively high standard of housing and relatively
comfortable flats on the basis of the new building regula-
tions and the guidelines of the housing welfare societies.
Some of these flats had central heating and hot water sup-
ply as well as laundries in the residential quarters.

The Netherlands created as early as around 1900 the legal
foundations for residential development on the basis of
social concepts. After 1918 the housing shortage aggra-
vated also in Holland so that the state paid even more
subsidies for social housing development. In residential
architecture existing two opposing movements which
have become manifest in the two cities of Amsterdam
and of Rotterdam.

In Amsterdam where row houses embedded into the city
structure were the traditional standard both urban devel-
opment and residential development concepts were de-
termined by the aesthetics of the "Amsterdam school". Its
conservative character is due to the fact that its designers
adhered to regional traditions of housing development.
On the basis of Hendrik Petrus Berlage's plan for
Amsterdam South from 1915 dense multi-storey blocks
of brickwork accompanying the streets dominated until

the 1930s. The baroque city structure of Amsterdam was
the benchmark. Everywhere were erected along wide av-
enues rows of houses with even fronts some of which had
expressive plastic decorations. The fact that many of these
residential buildings were erected by private builders
slowed down the development of functional ground plans
and the optimisation of the housing standards. Further,
the municipality did not have any strictly implemented
directives for social residential development as they ex-
isted in Berlin.

Rotterdam did not have a tenement system as Berlin and
there were erected larger housing estate complexes which
were separate from the ancient city. Since 1918 Jacobus
Johannes Pieter Oud had been urban development plan-
der at Rotterdam and he searched for pragmatic solutions
for both single-storey and multi-storey buildings. He was
able to prove that it was possible to keep the building cost
low and erect single-storey buildings and row houses with
flats for the low income population. He was influenced by
the architecture of Le Corbusier and "de Stijl" and his de-
signs apply the principles of Neues Bauen, therefore. Oud
wanted to mark the difference between the existing city
and his houses by the intense colours of the façades just
as Bruno Taut intended in Berlin. The major residential
blocks follow the block margin but similar to those by
Taut they are open. Depending upon the local situation
Taut had positioned the balconies and loggias either on
the street-side or on the yard-side whereas Oud keeps the
street-side façades plain and develops a plastic design for
the yard-sides by means of galleries of balconies. Moreover – as we have mentioned before – the houses only have strip-shaped tenants’ gardens and no outdoor facilities designed by garden architects.

The municipal housing development programme in Vienna, too, made enormous achievements in the field of social residential development after the collapse of the Danube monarchy and the founding of the republic. As in Berlin the Vienna city parliament had a social-democratic majority and housing shortage was extreme. The municipal administration under mayor Karl Seitz and the urban development councillor Karl Ehn (1926–30) reacted already in 1923 with a housing programme financed by the housing construction tax income.

Between 1923 and 1934 were built approximately 63,000 municipal flats. Most of them were located in huge inner-city residential blocks, the so-called “super blocks”. Their structure reflected the historic city structure of Vienna. The designers preferred monumental and axial designs in the spirit of Otto Wagner, picturesque squares in the spirit of Camillo Sitte, block margin buildings with steep-pitched roofs and with gates, battlements, bays, towers to modern settlement areas which open and flow. The political aim was to create large estates which supported the forming of communities and fitted into the existing city structure and offered comprehensive collective facilities for people who shared social and political views. However, except the green courtyards these projects did not have a greenery policy which might be compared with that of Berlin or Frankfurt which integrated functional outdoor facilities with an overall urban open space concept.

On the other hand, the municipality of Vienna wanted to keep rent very low, lower than in Berlin so that it would be able to offer appropriate flats also for workers and clerks with low incomes. For achieving this the flats had to be comparatively small - not more than 50 square meters always in houses with flats several back-to-back so that cross ventilation was rather bad. Most of the flats had no bathrooms. This had been excluded in Berlin by the technical directives of the Wohnungsfürsorgegesellschaft (housing welfare society). They permitted only houses with one pair of flats back-to-back and all flats had to have dedicated bathrooms and kitchens as well as balconies and loggias.

Centres of modern housing development in Germany
Among the German cities Berlin is one of the centres of social reform housing development after the First World War in terms of both quantity and quality. Others are Frankfurt/Main, Hamburg and Magdeburg. The Berlin housing estates can best be compared with the large housing projects which were realised at Frankfurt under the auspices of Ernst May (1925–1930). As in Berlin they were built in a municipality with a social-democratic government and the urban development councillor played a major role in drafting their design. The modernisation of the big city which included the settlements
was propagated by adding the keyword of “new” (the “new” Frankfurt”) as it happened in Berlin. Just like Martin Wagner with the large housing estates which were separated from the ancient city centre May also wanted to separate the functions of the 19th century city. As from 1925 the city of Frankfurt had erected approximately 15,000 flats in a number of housing estates. Most of them embedded in the topography of the Nidda valley. The programme was planned to run for ten years. The flats had an exemplary standard with built in kitchens, bathrooms and showers.

In contrast to the Berlin settlements the flats were smaller since the benchmark were flats on subsistence level for keeping the rents as low as possible. Moreover development in Frankfurt focussed on rational construction with prefabricated and standardised parts. For the estates which were built at the end, around 1930, this meant that they were composed consistently of ribbon buildings. Under Wagner’s influence this was refuted in Berlin as being dogmatic. Today many of these buildings and estates at Frankfurt have lost their authenticity. Many of their characteristic design elements like plaster, colour, doors and windows are lost. Neither has the city programmes for a thorough restoration of these settlements.

At Magdeburg which also had a social-democratic government Bruno Taut created the basis for a social housing development during his short term in office as urban development councillor (1921–23). This programme aimed at decentralising the city just like that at Frankfurt. Taut developed in cooperation with Konrad Rühl a general development plan which also reached out far into the area around Magdeburg. For reducing the pressure of urban development on the city this concept envisaged garden town-like housing estates in the suburbs whereas in the zones between the centre and these suburbs urban housing estate complexes consisting of buildings with a maximum of three storeys embedded in spacious green spaces were to create a kind of link. After Taut had left in 1923 Rühl and later urban development councillor Johannes Göderitz were able to use this plan and advance urban development with particular large housing estates. These estates were erected between 1924 and 1930 mainly by Magdeburg non-profit construction societies and comprised approximately 12,000 newly built flats. Most of them were major housing estates which were usually designed by private Magdeburg architects and had spacious courtyard gardens. Their architecture was both functional and traditional using plaster and brick contrasts. Although the hygienic conditions and the standard of the houses built by non-profit organisations at Magdeburg were on an equal level with those of Berlin the housing estates did not reach the architectural quality of the Berlin housing estates.

At Hamburg the urban development director Fritz Schumacher pursued other concepts for mitigating the housing shortage than those applied at Berlin, Magdeburg and Frankfurt. At Hamburg the target was to give the big city the same quality as the large housing estates and the model was not to separate the functions by dissolving the city. Under the guidance of Schumacher who designed some estates himself were built 65,000 flats, most of them small flats in mass housing projects until 1933. Most of the buildings were block margin buildings of clinker
bricks on the basis of a regional and local tradition. The large blocks are determined by façades towards squares, stressed corners and commonly used courtyards.

In contrast to Martin Wagner in Berlin Schumacher was not so much aiming at organising the big city by demonstrating functionalist urban development principles. He rather wanted to create homogeneous urban cityscapes. The change of paradigm in urban development was less marked in Hamburg than in Berlin. Neither did Hamburg implement residential development concepts in line with the principles of the International Style as they are reflected in Weiße Stadt and Siemensstadt. Due to the urban topography the designs did not include either the demonstrative integration of nature and topography as it happened with some of the Berlin housing estates.

“International Style” in Berlin
Weiße Stadt and the Großsiedlung Siemensstadt are products of the period “around 1930” and represent the “international style” which for a long time has been considered by historians of architecture to be the actual representative of modern age. The decisive factors for this assessment where the flawlessly white walls which seemed to ideally represent the turning away from history, tradition and ornament and where therefore stressed in an idealising manner in texts and photographs. The particular white of Weiße Stadt is actually highlighted by windows, doors and cornices in bright colours. In general international research makes it ever clearer that the pure white of the International style is a product of black and white photography.

Weiße Stadt and Siemensstadt, too are experimental estates. Both were financed directly by the city of Berlin. The involved architects enjoyed enormous freedom when designing the ground plans. Even the rooms which were combined living rooms and kitchens were allowed (for instance in the long bent ribbon by Otto Bartning at Siemensstadt and in some of the residential ribbons by Wilhelm Bünning at Weiße Stadt). Hans Scharoun designed for his buildings for Siemensstadt for the first time a flat with an open ground plan whose living room opens towards both sides of the house. Gropius developed his box-type ground plan with central corridor which he kept on using even in his contribution for Interbau 1957 at Hansaviertel (Hansa quarter) at Berlin. Hugo Häring was the only one who placed all the staircases and the “organically” shaped balconies on the western side. With this he made the very unusual endeavour to concentrate
all the plastic motifs on the sunny side of his ribbons and it is not for nothing that these buildings are the most frequently photographed houses of Siemensstadt. Also Salvisberg’s kit system was novel and unusual. He used it for his ribbons at Romanshorner Weg in Weiße Stadt. Above a larger flat on ground floor level with a garden are placed two maisonettes with balconies and separate entrance. This solution was used again in the estates built by the London County Council in the Greater London area after the Second World War.

There is a very significant difference between the designs by Otto Rudolf Salvisberg for Weiße Stadt and those by Hans Scharoun for Siemensstadt. With its higher frame-like buildings along Aroser Allee which guide the view into the slightly bent central axis which is accompanied by blocks Weiße Stadt is a modern adaptation of the traditional motif of order and delimitation using towers and gates. The bridge building which spans the central axis as a joint which can be viewed from both sides is with its artistic functionality a pure representation of the International style and fulfills the function of a centre that provides orientation. It is the Point de Vue which is offers a target for the view along the central axis and is thus fully in line with the spirit of a baroque urban or garden composition. Thus Weiße Stadt has a clear spatial structure despite the non-emotional and functional character of its multi-storey buildings. The two main views – the gate and the bridge house – are extremely striking and are usually shown to represent the entire ensemble.

In his design for Siemensstadt Hans Scharoun chose a completely different approach. Neither in the tradition of the stone city of the 19th century nor attempting to present small town or village developments as opposing the big city he created here a composition of parallel and staggered ribbons whose relations with each other and with the spacious green spaces do not recall any memories of pre-modern urban development. Open and containing spaces, narrowing and extending spaces follow an abstract design which has rows and parallels but not axes or symmetries. In their spatial balance, the integration of existing landscape situations and the green spaces which were designed congenially by Leberecht Migge Siemensstadt is a modern urban landscape in the sense of a term which was explicitly developed by Hans Scharoun only in his urban development theory after 1945.

“International Style” in housing estate development in France, England and Holland

When comparing Weiße Stadt with the large European housing estates of the later 1920s its peculiarities and those of Siemensstadt stand out even more clearly. The large housing estate which were erected at the same time in France (for instance “La Butte Rouge” by Sivin, de Rutté and Bassompierre at Châtenay-Malabry, 1924–28 or Cité Jardin at Suresnes, 1921–29 by Alexandre Maistrasse apply initially the garden town pattern and later a concept of greater urban density with a style which should most probably be called Art Deco (the theatre at Suresnes). The projects by Marcel Lods and Eugène Beaudouin – the Cité du Champs des Oiseaux at Bagneux (1930–32) and Drancy in the North of Paris (1932–34) which were vanguard projects both in terms of style and urban development have either been altered so much that they have become unrecognisable (Bagneux) or they were extremely reduced by removal of buildings (Drancy).
In England the “International Style” is first used only in few private and special buildings. The German modern age architects driven into exile after 1933 – for instance Erich Mendelsohn, Walter Gropius, Erwin Gutkind, Rudolf Fraenkel – did not have an opportunity to realise major housing estates. The heyday of modern residential development starts in England only with the period of reconstruction after the Second World War.

In terms of style the large housing estates in Holland by J. J. P. Oud at Rotterdam and Hoek van Holland are probably closest to those at Berlin. These former housing estates have become symbols of the “white” modern age. Yet, the housing estates at Hoek von Holland (1924–27) and “De Kiefhoek” at Rotterdam (1925–29) present a completely different type and form of urban development concept than the two housing estates at Berlin. Oud stuck to the row house pattern for his long double-storey ribbons and placed his rows parallel without any sections with dominating height. Another aspect is very important in this context: the outdoor facilities have been subdivided into strips of tenants’ gardens. Unfortunately there were neither space nor means available for spacious gardens. Oud’s design for the large housing estate of Blijdorp (1931) was not implemented. It envisaged flats in multi-storey ribbon buildings and large rectangular blocks around interior gardens.

The housing estate architect Bruno Taut – Use of colour in Modern age building
Bruno Taut stands out from among the architects who were committed to housing estate development in the 1920s. He is the artist among the housing estate developers who uses sovereignly old and new patterns and types and creates ever new patterns of houses along block margins, ribbons, cross bars, rows and groups and these never follow schematically any old or new dogma. If he positions buildings in seemingly traditional patterns at the block margin as he did at the Schillerpark housing estate he opens these blocks at their joints and orients the living rooms and balconies of the houses towards the sunny sides, i.e. South and West, and thus turns the buildings into parallel ribbons. If he opposes groups of row houses along both sides of a street as he did in the horseshoe housing estate he makes sections of them project or retreat, shifts their axes if only a little and thus creates narrower and wider parts which turn every street into a characteristic space. The horseshoe itself whose principle type is just a long bent ribbon gains its special power from the fact that all living rooms and balconies are oriented towards the inside – the large green space around the horseshoe pond – turning this space into an open space which is related to living, accessible for visitors but actually belonging to the inhabitants.

He found a completely different solution for Wohnstadt Carl Legien which had to be developed at the margin of the city centre along an existing axis. Here Taut placed the buildings in U shapes around three deep courtyards on either side of the street. The garden side is the main side of the three blocks which means that here, too, the loggias are not all orientated towards the sunny side but towards the common garden space which merges with the garden space of the opposite courtyard across the street. This creates a spacious garden town atmosphere right in the middle of a dense inner city district even without losing any of the density of development which is appropriate for this location. This is the main difference between...
Wohnstadt Carl Legien and the housing estate Tusschendijken by J. J. P. Oud (1920–1924) at Rotterdam which is often mentioned as a model. At this Rotterdam housing estate the balconies are turned towards the courtyards similar as at the Carl Legien housing estate but the yards of the former are closed and on either side quite a large part of the garden area is fenced in and subdivided into narrow bands like row house gardens. The atmosphere is friendly but close.

Taut was also a master of colour in building. He modelled buildings and housing estate spaces by means of coloured areas and he used shades and densities of colour which are unusual and again and again surprisingly intense. His first colourful housing estate are the Gartenstadt Reform at Magdeburg and Gartenstadt Falkenberg. The latter was and is still today the most sensational because it was and remained the most colourful of his projects. Lapis lazuli blue, chocolate brown, orange, turquoise, yellow, deep red brown and even black were the colours chosen by Taut and they could not be associated with façade colours but rather with panel paintings. The colourful housing estate at Falkenberg is probably closest to expressionist painting in which Taut’s contemporaries were confronted with things painted in “wrong colours”: green cows, blue horses, blue riders, yellow figures of Christ as they were created by painters like Franz Marc, Wassilli Kandinsky or Emil Nolde around 1913. It has been proven that Taut admired especially the paintings by Franz Marc. The closest analogy is a painting by Kandinsky – “Dame in Moskau” (Lady in Moscow) from 1912 – which shows a complex dream vision in which two rows of low houses in “wrong” colours and each of them with a different colour frame the middle ground.

A European or national search does not yield any comparatively colourful housing estates built before the First World War. The English garden towns which were the model for the urban development concept of Falkenberg are not as colourful and neither the workers’ housing estates in the North European industrial areas, the reform buildings at Berlin or the rural architecture of Brandenburg. The other German garden towns like Hellerau near Dresden (1908) and Staaken (1913) are not as expressively colourful, either.

Taut research occasionally mentions the island of Burano near Venice without clarifying, however, if Taut ever travelled to Venice and Burano – perhaps during his time at Munich – or how he might have come to know the colourful fishermen’s huts at the lagoon. These houses are often mentioned and shown on photographs in tourist guides. They are narrow, have usually two storeys, their eaves are turned towards the street and they are painted each in a different colour. The colours are deep and saturated so that some of them are in strong contrast with each other. It is not known whether the paint used was just left over from painting ships or whether residue pigments purchased at Venice were used or since when the houses have been painted so colourfully. What is known is that he people of Burano had little money to spend on decorating their houses and the same applied for Taut and the houses at Falkenberg. Taut found that a painted façade even if very intense colours were used was always cheap-
er than even the most simple sculptural decoration. Since Taut does not mention Burano in his published statements on colour the obvious analogy in appearance must remain a marginal note in the matter until further research yields more results. Analogue conclusions apply for the colourfulness of Scandinavian wooden houses and the colourful eastern European national architecture.

Also during the 1920s Taut used colour as an architectural element for his many housing estate projects. In the horseshoe housing estate he used colour not only for full areas, i.e. walls of houses, but also for modelling and structuring as for instance in the horseshoe itself whose staircase axes, loggias and jambs are painted blue which makes them retreat optically very much behind the house walls which were originally painted white. Groups of row houses got the same colour. Their façade were not coloured alternatingly as at Falkenberg. Thus Taut created larger colour units which create spaces just as the shifted axes and building lines do. At Wohnstadt Carl Legien the opposite courtyards were always painted in the same colour: one pair of yards was deep red, another one green and one was blue. The street-side façades and the head-buildings at the central axis were painted in a brilliant light yellow which created a strong contrast with the yard-sides. With this unconventional use of colour Taut kept on claiming with his extremely bold artistic designs.

Le Corbusier also started developing a very colourful architecture when designing his workers’ houses of the Quartier Moderne Frugès which were built from 1924 through 1926 at Pessac near Bordeaux. The Quartier Moderne was designed as a garden town with approximately 50 houses of various types standing either alone or in groups or in rows. According to Le Corbusier’s own statement he got the idea of coloured walls only when he saw the dense rows of concrete grey houses and he wanted to mitigate the density and relative closeness of the buildings by using colour. Some areas were supposed to retreat, i.e. he wanted to create optical recesses, others were to project and thus highlight the sculptural depth of the buildings which was part of the architectural design. Le Corbusier did not use primary colours like de Stijl but deep principal colours which he made to contrast with white areas.

Colour in European urban development

After 1918 Taut is no longer the only one who uses colour very much in architecture. The Dutch artists of the group “de Stijl”, namely Piet Mondrian, Gerrit Rietveld, Theo van Doesburg and also J. J. P. Oud expressly support the use of colour in architecture. Yet, they use in a completely different way than Taut: they prefer unblended primary colours (red, blue, yellow) which they usually make contrast with white areas. So the chromatology of this group may have created more clarity but it left less freedom that Taut kept on claiming with his extremely bold artistic designs.
The original impression created by the colours and shades which Le Corbusier chose at that time and which are related with his use of colour in the immediately preceeding phase of purism in his painting work can hardly be assessed today since there are not colour images from this time and his first colour scheme has not been found. He used light ultramarine blue (bleu doutremer clair), burnt Terra di Siena (terre de Sienne brulée), lead chrome green (vert anglais), light Terra die Siena (terre de Sienne claire) and white for the walls, burnt umber (terre dombre brulée) for the window frames. To date research relied on the colour ranges which were developed by Le Corbusier himself but not before 1931 and which were produced by the company Salubra. From these ranges conclusions were drawn backwards for the time around 1925. Only recently a uniform general concept was developed for the restorations of the colouring of the individual houses which has been going on since the 1980s. This concept is based on comprehensive studies of the history of architecture but not on investigations for restoration purposes of the existing houses themselves. We are certainly justified to say that the colours we can see today – an earthy red, a very pale green, a dense blue which has been made lighter by adding a lot of white – create a totally different atmosphere than that intended by Taut for Falkenberg.

Just like Taut Le Corbusier used deep and dense colours. He used one shade for an entire wall and just like Taut he let coloured areas meet at house edges without any transitional profile. Le Corbusier also used colour for modelling urban spaces. But in contrast to Taut he also modelled buildings by coloured recesses, so he used colour also in sculptural details. In his theoretical statements Le Corbusier praises the power of colour for creating spaces and modelling light just as Bruno Taut does.

And of course the two knew about each other. Taut published in his book “Bauen. Der neue Wohnbau” in 1927 five images of the “Workers’ housing estate of Pessac near Bordeaux” and a programmatic text by Le Corbusier. The black and white photographs reflect clearly the intense colourfulness of the housing estate. Taut in turn was well known in France as the master of social and colourful architecture. The archives of the Fondation Le Corbusier in Paris have an article by Charles Petrasch from Le Monde of 28. September 1929 which introduces the life and work of the architect under the headline of “Bruno Taut”. It reads for instance:

“Bruno Taut est un des premiers a avoir su le mieux tirer parti de la peinture dans l’architecture allemande moderne. Il considère la couleur comme problème fondamental de toute construction. Jusqu’à lui, notre époque n’avait guère connu la couleur comme adjuvant de l’architecture. Cette idée possède des défenseurs dans chaque pays. Rappelons l’interview de Fernand Léger sur l’importance de la couleur, publié dans le n° 58 de Monde. Le Corbusier, Mallet-Stevens, Gevrekian, Lurçat, en France; Rietveld, Oud, en Hollande; Hoste, Bourgeois, Van de Swaalmers en Belgique, ont réalisés dans cet esprit de bâtisses et de jardins de grand intérêt.”

We cannot say whether Le Corbusier got his inspiration for a colourful housing estate expressly from Bruno Taut. The situation in Europe has become far too complex by the mid 1920s. However, it is quite obvious that Taut’s Gartenstadt Falkenberg had been very well covered and intensely discussed in the relevant press immediately after it had been completed and it had been built more than one decade before Pessac and also Taut’s theoretical statements on colour were already quite clear before Le Corbusier started to deal in theory and practice with colour in urban development. With respect to the use of colour in urban development the two architects seem to be quite equal. The most important difference is that Taut focussed on creating social spaces and on the functional and social aspects of architecture whereas Le Corbusier followed more formal and aesthetic guidelines both at Pessac and also later with the Unité d’Habitation.

Social housing development which was one of the most important tasks in building in Europe during the 1920s plays a greater role in Taut’s oeuvre than in that of any other architect of that period. Taut’s enormous creativity is already reflected by the work he did in organising, designing and executing 10,000 flats in only 10 years. In addition to the quality the estates and housing estates he designed reflect the social responsibility of the architect who managed to create rewarding designs both of urban development and architecture despite the strict economic limits which applied for mass housing. Bruno Taut’s work also documents the development of reform housing from the garden city to the large settlement. However, his most personal contribution in the history of modern age settlement development is the use of colour as architectural design element. His colourful housing estates and settlements attracted a lot of attention already when they were built. They enjoyed greatest international esteem and soon became very respected models for housing development.

Parallel to his work as housing estate architect Bruno taut also worked as publisher and teacher. He made his opinion heard concerning the various issues of urban development and architecture in his capacity of member in architects and artists associations, of university teacher or respectively as consultant and participant in building committees and exhibitions. He accompanied his comprehensive activity as renowned architect with many publications and even after he had been forced to emigrate in 1933 he soon got good opportunities to work in Japan and Turkey. Bruno Taut the visionary, urban planner, architect and artist is very justly considered to be one of the most significant representatives of Neues Bauen and pioneer of modern housing estate development.
Not only do the Berlin housing estates and housing estates which have been chosen for nomination represent the various phases and the scope of central European residential development, garden architecture and building architecture. As a group they are actually unique on the international level considering their variation and originality and their excellent artistic quality. One of the most outstanding features of the Berlin housing estates is the fact that they are very authentic even today since they suffered only very little damage during the war and conservation or respectively restoration works assure that their original fabric and appearance are preserved.

3. D Integrity and/or Authenticity
The fact that the fabric of most of the historic buildings are preserved characterises all nominated Berlin housing estates. Any interference for ideological reasons during the Nazi period consisted only of the re-painting of the façades of Wohnstadt Carl Legien. Since most of the settlements are not located within the central area of Berlin they hardly suffered damage during the Second World War. Gartenstadt Falkenberg, Wohnstadt Carl Legien, Weiße Stadt and the Hufeisensiedlung experienced only little damage during the war. The Siedlung Schillerpark and Siemensstadt which were both located near industrial and military locations suffered more damage by bombing. Yet, even here only individual houses were damaged. The reconstruction works represent independent achievements. At Siemensstadt they were carried out by Hans Scharoun and Otto Bartning themselves, at Schillerpark by Max Taut. They have enriched the overall image of the settlements. In none of the settlements were additional houses built after 1945 for densifying them.

After 1945 many of the houses were resurfaced and thus lost the smooth membrane-like finished which was typical for neues bauen and the pigmented stippling which was characteristic for the rural small houses of Gartenstadt Falkenberg and the Hufeisensiedlung. With the plaster disappeared also the colouring which was so very important for the Taut housing estates at Falkenberg, Britz, Schillerpark and Carl Legien.

The fundamental concepts of the green spaces with their carefully designed, functional areas which had been designed by specially employed garden architects for most of the settlements have been preserved with the exception of few changes. Since the demands for utilisation have changed additional playgrounds and waste bin facilities and also parking lots were installed. Additional plants which partially grew wild or the conversion of the tenants' gardens which had originally been designed as kitchen gardens into recreation and ornamental gardens have reduced the clarity of the spatial and social relations.

The individual housing estates

Gartenstadt Falkenberg
At Gartenstadt Falkenberg only one row house at Gartenstadtweg (no. 50) had to be rebuilt. After the division of Berlin Gartenstadt Falkenberg belonged to the eastern part of the city and after the end of the war its houses did not become subject to major additions or changes like replacement of windows or changes of the ground plans. For these reasons most of the buildings consist now of the original fabric.

However, with the resurfacing in 1966 they lost an important design quality: the manually applied trowel plaster with its lively structure. The colourful painting and the ornaments which were so decisive for the overall image of the housing estate were also almost completely removed. The entrance doors of many houses were renewed and the roofs were re-covered which led to the loss of many of the shed dormers. Some of the houses lost their wooden façade elements like shutters, pergolas and trellises. During the existence of GDR (German Democratic Republic) means for maintenance were scarce. For this reason the houses were in enormous need of modernisation when renewal and restoration works began in 1991. The thorough repair on the basis of restoration guidelines was started in the early 1990s. It was carried out in several phases and completed in autumn 2002. These works included the renewal of nearly all the plaster surfaces and many doors, shutters and some windows were replaced by new ones which had been manufactured in the original design. The repaired buildings have Taut's colourfulness as it had been identified by studying the buildings and sources of information.

Outdoor facilities
The garden town character of the housing estate has been preserved. The structure of paths and outdoor facilities inclusive of the division into parcels has been maintained. The paving of Akazienhof with asphalt and the paving of the streets has not been changed with some exceptions at Gartenstadtweg. The interior paths, garden paths and terraces which had originally been paved with a mix of crushed stone and sand have largely been paved by the inhabitants who used various materials.

At Gartenstadtweg the historic terrace design of the front gardens has been preserved although the concrete walls were probably renewed already during the 1930s.

According to the design by the garden architect Ludwig Lesser the private gardens had originally been dominated by so called house trees (high-standing fruit trees), espalier fruit trees, vegetable patches and uniform fences or hedges. During the past decades these kitchen gardens were converted into recreation and ornamental gardens and many fruit trees were removed. The process to stop
this development was started in 2001 by means of an expert opinion on the restoration of the garden architecture and an information leaflet. The standardised sheds for small animals in the gardens were preserved.

In the recent past it has been possible to carry out conservation measures for reconstructing the terraced front gardens at Gartenstadtweg and the front gardens at Akazienhof in accordance with the historic design.

Siedlung Schillerpark
The buildings of all three phases of development are well preserved. Despite the war and renovations the authentic appearance was preserved. Where ever changes occurred – at concrete parts, loggias, windows, etc. – the characteristic design elements have been restored or repaired in line with the restoration requirements.

Unfortunately the housing estate suffered some damage during the war because it is located near the Reinickendorf industrial centre and the Tegel shooting range. However, damage by aerial bombs was restricted to the second block of the first development phase (Bristolstraße 1–5). The house at the corner of Bristolstraße 1 with Dubliner Straße was almost completely destroyed. Its reconstruction was headed by Max Taut. He rebuilt it almost as it had been. The only change which he made was that he extended the jamb storey for creating more residential space. In connection with this the staircase was changed and the brick bands in the white plaster squares between the windows were not reproduced.

The other buildings survived the war almost without damage. Repair works during the 1960s and 1970s caused only little changes. During this time the plaster was renewed. It had scarcely been used in this housing estate anyway. The loss of the coloured paint on the yard-side staircase axes and the jams and the simplification of the reinforced concrete pillars at the balconies of some of the blocks of the first development phase were a greater loss. When the concrete was repaired the workers removed the profile and the cubic crowning. At that time two blocks were altered by the addition of heat insulation which changed the contours of the buildings. The restoration works which began in 1991 have corrected the overall appearance of the housing estate and largely recreated the original designs. During recent restoration works the insulation was removed from one of the blocks.

When the housing estate was extended by Hans Hoffman in 1954 the façades of the three ribbons in the interior of the southern block and of two of the ribbons at the margin were covered with heat insulation and other modernisation works were carried out. This lead to a far reaching loss of the architectural quality of these ribbons. In contrast to the above the two outer buildings at block
margins by Hoffmann were preserved with the transparency of the façades which is characteristic for his architectural style with glass-fronted staircases and wide glass-fronts on the loggia-sides.

Outdoor facilities
The ground plans of the courtyards of the first and second development phases have largely been preserved in the original structure. Essential elements like the division into narrow front garden zones, access paths around the structures, flat lawns accompanied by rows of trees and large sand covered playgrounds framed by hedges or rows of trees are still visible. However, a lot of the original plants and planting patterns do not exist anymore. The front gardens present a rather heterogeneous and unsatisfactory image with high plants a lot of which cover and disturb the buildings’ façades and entrances. Both flat lawns were originally accompanied by pink hawthorns which were planted close together and clipped into spheres. This is to say that the austere façades were complemented by corresponding bands of plants with an architectural effect. The main access paths with asphalt paving and a border of rounded glazed clinker bricks are as they were originally built.

Windsor Straße still has most of its original whitebeams but a lot of the characteristic pink hawthorns in Oxforder Straße are lost. The important relationship with the circle marking the entrance of Schillerpark has also been disturbed by lack of maintenance of the park’s edge. Bristolstraße was originally a wide promenade in front of the park but here it has been partially covered by playgrounds and sports facilities.

Großsiedlung Britz (Hufeisensiedlung)
Since the housing estate at Britz suffered only little damage during the war and the single-family houses were not sold to individual owners after the war all parts of this housing estate consist almost completely of the original fabric. The characteristic mixed housing estate form with multi-storey buildings and single-family houses has not been disturbed by any additions or new buildings. The appearance of the single-family row houses with their narrow and deep gardens is also still authentic. Original windows, doors, brick cladding and roof shapes as elementary design elements have been preserved everywhere.

The stippling which had been coloured with mineral pigments and spread by rubbing which was used nearly everywhere and which contributed with its colours to the spectacular spatial impressions does not exist anymore. Already with the repairs after the end of the Second World War it was replaced by uncoloured rough plaster on many façades. The coloured paint of many windows and doors is also lost.
During the restoration works which were carried out in 1970s initially without analysing the original situation and studying it from the point of view of restoration existing plaster was removed for economic and constructional reasons. Initially the new plasters were not the same as the original pigmented plasters. Examples for them are the painted façades of the multi-storey buildings at Fritz-Reuter-Allee 6–42 and 52–72. With the restoration which began in 1982 pigmented plasters were used again and their colours were determined on the basis of restorer’s investigations.

Outdoor facilities
The subdivision of areas and the structure of the paths through the outdoor facilities have largely been preserved so that the original character of the housing estate and the functional and aesthetic interaction of the gardens with the arrangement of the buildings can still be experienced. Characteristic elements like the paving of the footpaths, the water-bound paths and the historic paving of the service roads have largely been preserved.

A lot of the originally quite uniform planting schemes in the front gardens and the uniformly planted fruit trees in the tenants’ gardens are lost. Most of the characteristic avenues of trees planted along the roads have been preserved but some later additions of trees do not coincide with the original scheme.

The historic waste bin sheds do not exist anymore. They were replaced at the original locations by exposed-aggregate concrete boxes with gravel surface. The originally existing carpet beating facilities were removed, too.

Wohnstadt Carl Legien
For ideological reasons colours of façades were changed already on the occasion of the Olympic Games in 1936. The Second World War caused only little damage to the residential buildings. Some houses of block E at Trichtenbrodtstraße 22–34 seem to have suffered major damage which was repaired after 1945. The repair works adhered to the original design. However, the smaller one of the two laundries which was located in the block at the northern section of Gubitzstraße had been almost completely destroyed and was rebuilt with a different design after 1945.

During the repairs which were carried out after 1945 a lot of the original patent plaster and mineral paint coating were lost. For the renewal had been used various types of plaster (smooth plaster, stippling, scraped rendering). The windows, too, lost their coloured design and some of them were exchanged. The latter happened in particular with the single windows of the bathrooms. Further, some tenants converted the loggias to conservatories. But no severely interfering constructional changes took place so that both the urban structure and the buildings’ fabric with their architectonic structure were preserved.

In the early 1990s began the restoration of the façades after experts had carried out the necessary investigations. The pilot project was the renewal of the façades of
Trachtenbrodtstraße 18 and Sodtkestraße 20–36 in 1992–94. When the flats were modernised as from 2003 the restoration of the housing estate was continued, too. When these works were carried out many windows could be preserved. This applies in particular for the windows of the flats which are orientated towards the yards and those in the head-buildings at Erich-Weinert-Straße. The box-type double windows on the street side had to be exchanged for modern wooden insulation windows due to constructional damage of the original ones. The new windows were manufactured with the same structure and colours as the original windows.

Most of the large T-shaped heating plant and laundry in the southern yard between Sodtke- and Gubitzstraße is not used today. When all of the flats were connected with the district heating system it lost its function and part of it is now used as long-distance heat intake. The former central laundry has been changed inside and outside and the previously spacious rooms lost the light and transparent character when the large glass panels were replaced by brickwork. In contrast to this the smaller laundry has been converted in obedience to the restoration guidelines in 1992–94 when the façades of the block’s side along Sodtkestraße were restored in line with the tradition of neues bauen.

When the works were completed in 2005 the settlement had regained everywhere the original appearance with the colour scheme which had been designed by Bruno Taut.

Outdoor facilities
The analysis of the outdoor facilities shows that after the end of the Second World War the quality of the outdoor facilities deteriorated gradually. The original intention of Bruno Taut to provide light, air and sunshine for the flats by means of spacious, open courtyards with purposefully and picturesquely planted trees both inside the yards (willows) which were to be used by all tenants in common and also at the head-buildings towards Erich-Weinert-Straße (robinias) was counteracted ever more until the 1990s by lack of maintenance, overgrowing, littering and abandonment of the tenants’ gardens which had been created to fight the misery of the war and post-war period.

Nevertheless, the structure of areas and paths has been mostly preserved in the entire housing estate but the pavings and borders are only in some places the original ones. Of most of the waste bin sheds only parts have been preserved. Some of the original plants still exist and most of the borders and pavings for the house access paths have been preserved.

Weiße Stadt
In all parts of the housing estate the original fabric has been largely preserved. With the exception of the removal of the central heating plant in 1968–69 no major constructional changes are visible despite the fact that individual houses had to be rebuilt after the war. The urban structure was also preserved and most of the design elements which characterise the overall image – for instance
windows and entrance doors, loggias, eaves, concrete parts and brick frames – have been preserved. The membrane-like thin smooth plaster with its brilliantly white paint coat and the colouring of individual architectural elements are lost, however. Most of them had been removed when damage from the war was repaired and in connection with the new plaster-rendering during the thorough renovation until 1955 and also during later repair works in the 1970s.

Since restoration of the housing estate began in 1982 the disfiguring plaster of the post-war period could be replaced step by step by new smooth plaster with white mineral paint coating. In some cases (e.g. the buildings by Ahrends along Aroser Allee) thin heat insulation plaster was used as requested by the settlement community. The glazed loggias in the houses by Ahrends also got heat insulation. The original iron and glass structures with thin parapets of brickwork had to be rebuilt because they had shown constructional damage. They were substituted by aluminium structures with thermo-glazing and heat-insulated parapets whose appearance is similar to that of the original structures. Yet, the rows of loggias lost their characteristic, precise contours by the substitution.

Outdoor facilities
Ludwig Lesser had originally created a strictly orthogonal design. Most of its spatial structures, alignments of paths, materials and tree planting schemes do exist still. Yet, in some places the original situation has been disturbed by the addition and change of buildings and plants from the 1950s until the 1990s.

In the section which had been designed by Salvisberg only the tenants’ gardens at Romanshorner Weg are preserved and they are still bordered by hedges as in the original design but the formerly characteristic tenants’ gardens on the yard-side do not exist anymore. North of the bridge building Aroser Allee largely has its original character of the settlement’s green backbone still. South of the bridge house the central promenade which originally had no trees on the stretch down up to Schillerring and which was bordered by an austere hedge had been altered by irregularly planted birches which severely disturb the originally intended impression of the architectural ensemble. Regulations for the outdoor facilities were created in 2000 and on their basis first works were carried out in 2001. They restored one yard in the section which had been designed by Ahrends and to an extent re-created the impression which Lesser had intended.

Großsiedlung Siemensstadt (Ringsiedlung)
Since they are located near the large industrial estate of the company Siemens the buildings of the Großsiedlung Siemensstadt suffered quite a lot of damage. Entire sections of the buildings designed by Scharoun and Gropius at Jungfernheideweg 1 and 21 as well as parts of the block margin by Bartning and of the ribbons by Häring at Goebelstraße 21–25 and 24 were destroyed. But the destruction had not been able to decisively change the authentic image of the large housing estate.

The reconstruction in the early 50s did not always completely re-establish the original state. Scharoun himself designed a new head-building which was erected in 1949–50 and replaced the house at Jungfernheideweg 1 in the section which he had designed. The building with the flat row of shops at the corner of Jungfernheideweg and Goebelstraße in the section designed by Gropius was also rebuilt in 1955 in a design which differed from the original. It was altered in 1988/89 and adapted to the functional style of Gropius on the basis of a design by the architects Hilmer & Satllter. The houses at Mäckeritzstraße 18–22 in the section by Scharoun were rebuilt in a design which resembled the original.

After reconstruction of the houses at Goebelstraße 21–25 which had been damaged during the war had been completed (1951–52) the eastern end of the ribbon designed by Bartning was extended by the houses Bartningzeile numbers 11–19 in 1955–56. Approximately at the same time was built the final head building at Goebelstraße.
1–9. Hans Scharoun had designed it as gallery block. Its ground plan which resembles a saw-blade and the staggered façade structure differ very much from the functional style of the Ringsiedlung.

The first refurbishment of the houses of the housing estate was completed in 1955. The housing estate was changed even more in the 60s and 70s when all houses were resurfaced with new plaster and paint coating which did not coincide with the original situation. Many details were changed, too. In 1982 comprehensive restoration began with the rehabilitation of the ribbons by Häring. In 1984 followed many of the buildings by Scharoun and these were followed by the ribbons designed by Henning. The damaged elements were repaired and especially the plaster and the paint coating were renewed in coincidence with the original design. Changes were accepted only when they were necessary for constructional reasons as it was the case for the kidney-shaped balconies by Hugo Häring. At that time the decision was made to preserve the “Armoured cruiser” by Hans Scharoun at the entrance of the housing estate in its post-war version.

The next repairs lead to some deviations from the original design in the sections designed by Gropius and Bartning. In the eastern ribbon by Gropius at the block margin towards Jungfernheideweg the iron strip windows of the staircases were replaced. In 1998 it became necessary to refurbish the rear balconies of the long Bartning ribbon at Goebelstraße. The ceilings of the balconies were damaged and steel pipes were installed for supporting them.

In general the urban composition of Ringsiedlung has been preserved and especially since its restoration in the 1980s and 1990s also its architectonic appearance is quite authentic.

Outdoor facilities

In the Großsiedlung Siemensstadt important elements of the design by Leberecht Migge have been preserved even until today. In many places the outdoor facilities still have their original park-like character so that restoration is intended for many of the green spaces of the settlement.

A lot of the path structure within the housing estate and also of the pavings have been preserved, too. The structure of the road spaces was altered mainly by the creation of parking lots at Goebelstraße and at the forecourt at Geißlerpfad. The structure of the vegetation areas, many of the original trees as well as greenery at the façades have also been preserved.
4. STATE OF CONSERVATION AND FACTORS AFFECTING THE PROPERTY
4. A Present state of conservation

Refurbishment and modernisation programmes were introduced as from the 1950s for maintaining the basic fabric of the housing estates of Britz, Schillerpark, Weiße Stadt and Siemensstadt in West Berlin but these programmes did not take into account the requirements of monument restoration and conservation. In the estates on East Berlin territory, i.e. Gartenstadt Falkenberg and Wohnstadt Carl Legien, were carried out only occasional repair works. In the western part of the city thorough restoration works began in the 1980s. These works were carried out in close cooperation between the authorities and experts for the conservation of monuments, the settlers’ communities and the architects which were contracted for these projects. This process started in the eastern parts of the city in the 1990s after the re-unification of Germany. Everywhere the restoration works were preceded by detailed stock taking and investigations into the original state and development of the estates.

Restoration works have reached different stages of completion in the nominated housing estates. Up until now restoration works have been completed in the housing estates Falkenberg and Carl Legien. The works at Gartenstadt Falkenberg were completed in autumn 2002. At Wohnstadt Carl Legien they were completed in 2005. After they have been restored in the original colourfulness on the basis of findings of proper research the houses of the housing estates show again the rich, brilliant colours chosen by Bruno Taut.

The restoration works at the Siedlung Schillerpark have also largely been completed in all four of the development phases. Only the few parts of façades which had originally painted smooth plaster still have the post-war plaster rendering.

The large estates at Britz (Hufeisensiedlung), Weiße Stadt and Siemensstadt have regained their original appearance up to about two thirds. Parts of these housing estates need more extensive restoration in particular, since the first restoration works were carried out more than twenty years ago and some of the buildings which were restored at that time show new damage by now (buildings by Scharoun and Häring at the Ringsiedlung).

We now have to keep up the standard of the restorations as it was begun in the 1980s and continue these works on the basis of restoration plans. We intend to use these schemes for re-establishing also those parts of the housing estates which have not been restored yet in their proper quality. Today we are facing new challenges with respect to these housing estates because the social and economic situations have changed and changes have also occurred with respect to ownership.
The individual housing estates

Gartenstadt Falkenberg

The thorough restoration of the houses began in 1991 and it was based on catalogues of restoration measures which were developed after detailed investigations into the original state and development from the restoration point of view. The purpose of the restoration measures consisted in re-creating as far as possible the architectonic quality of the buildings inclusive of the colourfulness and many of the details which are important for the general impression.

By means of the investigations and studies of source material it was possible to determine the original colour for almost every relevant detail. In addition to the restoration or re-production in line with the requirements for the conservation of monuments of windows, roofs, dormers, shutters, doors, chimney copings, trellises, pergolas, loggias and garden fences special attention was paid to resurfacing the buildings with the original type of plaster and mineral paint as well as to re-creating the abstract paintings on the façades. Since the few plaster surfaces which were still original and also the plaster surfaces which had been produced during the GDR-period were in a bad state of repair nearly all of the plaster surfaces had to be renewed. Details like roof flashings were carried out in line with today's guidelines for the conservation of monuments.

The restoration and refurbishment of the houses in the originally second development phase at Gartenstadtweg was completed in 2000. One year later started the works at Akazienhof which had been the first development phase and these works were completed in 2002. Thus Gartenstadt Falkenberg has been re-established in its original colourful appearance.

Outdoor facilities

The outdoor facilities of Akazienhof with the dominating two rows of robinias were refurbised in 2002/03 in an exemplary manner after the restoration of the buildings had been completed. The missing row of robinias was planted. In line with the original design were planted privet hedges around the front gardens and at the façades and entrances were planted espalier fruit and climbers.
Since the expert opinion on the restoration of the gardens has been established in 2001 attempts have been made to abolish the coniferous trees and the oversized evergreen plants in the gardens whose design was altered by the tenants on their own account and to replace them by newly planted high-standing trees of ancient fruit varieties so as to re-establish the gardens with the original character as kitchen gardens. An information leaflet which has been produced in cooperation with the state conservation office and which is distributed to all members of the cooperative is to support this process.

The uniform garden fences were already rebuilt when the houses were restored during the past years. In the recent past also parts of the concrete retention walls of the front garden terraces at Gartenstadtweg were repaired and the gardens were planted. As result of these efforts important parts of the outdoor facilities have regained their original appearance.

Siedlung Schillerpark
Section designed by Bruno Taut

The restoration began in 1991. Gradually all parts were restored in line with the original design with the exception of the block at Barfusstraße 23–25.

The restoration was based on detailed stocktaking followed by the production of a concept for restoration in which the monument conservation authorities, the builder, the tenants and the responsible architects’ practice were equally involved.

The concept also envisages a solution in line with the requirements for monument conservation for the glazing of the loggias which the tenants asked for. For this purpose was developed a uniform filigree steel and glass structure which was then installed step by step. The original lateral wind screens were painted in the original white colour whereas the new parts were painted grey so that the difference between the original and the new parts is obvious.

Since the Siedlung Schillerpark is located near Tegel airport it needed noise protection. This was provided by installing noise protection glazing in the inner wings of the box-type double windows. This meant that the original windows which are important for the appearance of the housing estate could be preserved. The smooth plaster and the blue-white mineral paint coating of the staircase walls and the jambs were not yet restored. The post-war plaster is so well preserved that the restoration of these features appeared not to be economical. Yet, when any repair or maintenance works become necessary in future the original blue smooth plaster will be restored.

When heat insulation was installed at two blocks in the 1970s/1980s this created a severe disturbance of the appearance since the heat insulation plaster was put on top...
2. Siedlung Schillerpark  

State of conservation / Sanierungsstand

of the red brick cladding. When the restoration works were carried out it was possible to remove the heat insulation from the block at Dubliner Straße 62–66 and thus to re-establish the original appearance. For reasons of building physics the heat insulation had to be renewed for the block at Barfußstraße 23–25 in 2002–03 when the building was restored. This time the façades got profiles consisting of white frames and dummy joints so that typical structural elements of the houses of this third development phase are visible again.

The impressive colourfulness of black, red and orange paint coats inside the staircases of the houses of the first development phase has been restored. Also the concrete pillars of the projecting loggias of this development phase were restored with their original shapes when the concrete works were thoroughly rehabilitated. The missing brick bands of the white plaster squares at the buildings of the first development phase were also restored so that the expressive design quality of the Siedlung Schillerpark has been re-established with its original impressiveness. Further, the owner, i.e. Berliner Bau- und Wohnungs- genossenschaft von 1892 e.G., intends to paint one of the flats according to Taut’s original colour scheme.

Section designed by Hans Hoffmann

The four ribbons at the margin which Hans Hoffmann added in 1954 for complementing the block are in different states of repair and preservation. The two buildings of Oxforder Straße 12/14 and Bristolstraße 25/27 have been restored during the most recent restoration of the buildings by Taut whereas the other two lost much of their architectural quality when their façades were covered with heat insulation and when the fully glazed staircase window bands were exchanged.

Outdoor facilities

The historic appearance of the courtyards designed by Bruno Taut with their rows of trees has been impaired by increasing the distance between the pink hawthorn trees and/or the replacement of plants by others which are not the same species as in the original design. Up to now the original pink hawthorn rows have been replanted only in the eastern courtyard between Dubliner Straße and Windsorer Straße. The smaller playgrounds at the northern ends of the courtyards are once more framed by hedges and rows of whitebeams.
In those parts which have been designed by Hoffmann and Rossow the increased density of trees impairs the spatial structure with its alternation of open and closed or respectively public and private spaces and the contrasts between the colours of the tree trunks, leaves and blossoms which last all year round and which are achieved by the fact that only a limited number of species have been chosen. Further, the higher density of trees disturbs views and impairs the lawns with too much shade.

In 2003 a plan for preserving the monument's outdoor facilities of the 1920s and 1950s was established by order of the building cooperative. Since 2004 has been in existence also a development concept for the restoration and preservation of the garden architecture.

**Großsiedlung Britz (Hufeisensiedlung)**

The thorough restoration of the houses started in the 1980s and still goes on. It is carried out on the basis of detailed analyses of the existing situation and investigations for restoration purposes. The result is that in all development phases the architectural quality and colours were restored so that most of the housing estate has been re-established in the original design.

Yet, the Hufeisensiedlung at Britz still looks rather heterogeneous. On the one hand there are still parts of the housing estate – for instance large parts of the horseshoe and the multi-storey buildings at the block margins at Parchimer Allee 66–104 and Buschkrugallee 223–247 – which had been repaired during the post-war period without consideration for their preservation as monuments and due to these repairs they lost their original plaster and colouring. On the other hand a renewal was started in the 1970s with the intention of restoring Taut's coloured architecture but this restoration was carried out on the basis of analyses of colours and materials which were not entirely correct. It took place in particular at the so-called “Red Front” at Frith-Reuter-Allee 6–42 and 52–72 and as its result the projecting staircases were not painted with the original pink colour.

The restoration of the horseshoe has not been completed, yet. In the mid 1980s the interior façades and the loggias which are orientated towards the lake have been painted with the original blue colour. The actual renewal of the walls and of the window colours was started in 2000. Until 2001 a small section of the white-blue façade with the staircases (at Fritz-Reuter-Allee 44–46 and Lowise- Reuter-Ring 1–9) was properly restored (both plaster and colour). The entrance to the horseshoe at Fritz-Reuter-Allee still requires major restoration works. The flight of stairs with the original pillar lights and the forecourt will have to be restored.

The block of Buschkrugallee 179–217 (development phase III) is the only one which still shows major damage of the façade. Repairs in the 1970s which were not proper restorations (wrong colours and no mineral paint) and in which dispersion paint was used created subsequent...
3. Großsiedlung Britz (Hufeisensiedlung) State of conservation / Sanierungsstand

Fig. 99: Großsiedlung Britz, state of conservation, scale 1:5,000, 2005

Fig. 99: Großsiedlung Britz, state of conservation, scale 1:5,000, 2005
damage. During a recent restoration in line with the original state this paint was removed on the street side façade.

Outdoor facilities
Currently large parts of the outdoor facilities are not in a proper state of restoration. However, a proper restoration of the outdoor facilities is possible because their fundamental structure still exists. The expert opinion established in 2003 on the restoration of the garden architecture presents the most important measures for re-establishing the outdoor facilities in their original quality.

The core of the settlement – i.e. the horseshoe – still shows the design concept in detail. High trees have grown at the pond where originally no trees had been and the former seasonal climax created by a circle of blossoming morello cherry trees is almost non-existing. The façades are hidden by high coniferous trees. For achieving a proper restoration of this area GEHAG and the district’s municipal administration have entered into negotiations on taking the entire facility of the horseshoe into private care.

The green spaces inside the horseshoe are not the only ones which have been very much impaired. Other important deficits in addition to them are the substitution of lost plants at the streets by sometimes wrong plants or species and the fact that inhabitants have changed the design and uses of their gardens so that a lot of these spaces are no longer the original kitchen gardens. The raised plant beds which were built at Fritz-Reuter-Allee in the 1960s and 1970s and the conversion of some front gardens into parking lots in some parts of the housing estate also disturb the historic appearance.

Wohnstadt Carl Legien
Today, after the completion of the refurbishment in 2005 all parts of the residential buildings have the original appearance again. Along the axis of Erich-Weinert-Straße the spaces with the various colours can be experienced again. It was even possible to restore two flats with Taut’s original colour scheme.

In 1992–94 was carried out a pilot project in which the plaster and paint coats of the houses Trachtenbrodtstraße 18 and Sodtkestraße 20–36 at the corner with Erich-Weinert-Straße were restored on the basis of investigations for restoration. In the case of the block wing at Sodtkestraße it was the head-building and the street front at Erich-Weinert-Straße which were restored. For economic reasons the plaster could be restored in the original quality and appearance only at those parts where it had been in a very bad state of repair so that even the
The façades were painted with mineral paint in line with the original coat and also the paint coats of the windows and entrance doors as well as that of one staircase were re-created. The restoration was supported by finance from the Deutsche Stiftung Denkmalschutz (German Foundation for Conservation of Monuments). Simultaneously the former smaller laundry in the block at the northern part of Gubitzstraße which had been re-built after 1945 although not with the original design was converted into administration offices – this time in line with the requirements for preserving monuments.

When the flats were modernised as from 2003 the restoration of the housing estate was continued, too, and it is completed now. The façades, windows, doors and staircases were restored on the basis of results of proper investigations. Since the original pigmented smooth, structured and fine-grain scraped renderings often were not properly attached to the façade surface anymore they had to be removed and the façades had to be completely resurfaced in line with the findings. The windows of the flats towards the yards and in the head-buildings at Erich-Weinert-Straße had somewhat been protected against the weather by the full-width loggias so that they could be preserved despite some constructional damage. However, the box-type double windows on the street side had to be exchanged for modern wooden insulation windows. The new windows were manufactured with the same structure and colours as the original windows.

The T-shaped heating plant and laundry in the south-eastern yard between Södike- and Gubitzstraße which is mostly empty and disused still requires major repair and restoration. When all of the flats were connected with the district heating system during the GDR-time it lost its function and its basement is now used as long-distance heat intake. The future use of the house must be defined, yet. A concept exists for its use in line with the requirements for preserving it as part of the monument.

Outdoor facilities
Meanwhile the outdoor facilities have also been properly restored as it had been done for the façades and now the original design can be experienced again. Trees were felled and almost all missing trees, bushes, hedges and herbaceous plants which had been part of the original design were planted in the yards and front gardens for re-establishing the historic appearance. These works also included the careful re-opening of the original views between the yards. Many of the overgrown and partially disused tenants’ gardens were abandoned and integrated into lawns and playgrounds for communal use. In doing so the fruit trees were preserved and missing ones were
re-planted. This regenerated the original spaciousness of the areas. Thanks to the remaining old trees the area is still very green.

The paths have been repaved with the original materials (mastic asphalt or respectively Bernburg Mosaic grey stone paving) and waste bin areas as well as playgrounds were re-structured.

Weiße Stadt
In 1982 began a thorough restoration of the buildings on the basis of a detailed stocktaking and analyses for restoration purposes which had been carried out in 1980–81. The restoration of the housing estate continues even today and it lead to the recovery of the architectonic quality of all parts of the housing estate. Especially the smooth plaster with white mineral paint coating and the coloured architectural elements have been re-established in line with the findings.

Old damage existed in the structure of the glazed loggias in the buildings designed by Otto Rudolf Salvisberg and Bruno Ahrends. Especially in the houses designed by Bruno Ahrends the loggias were originally used as conservatories but in the 1980s their use was altered due to constructional needs and because the tenants and the settlers society wanted it. This impaired the appearance. The iron structure was replaced by aluminium which was completed with thermo-glazing and a parapet with heat insulation attached in front so that the loggias can now be used as additional living room throughout the entire year.

On the other hand the loggias in the houses designed by Salvisberg are restored in line with the requirements of monument conservation. This restoration started in the late 1990s and goes on to date. The result of this restoration is more in line with the original appearance because the aluminium profiles for the thermo-glazing are narrower and because no heat insulation is attached to the fronts. The prefabricated concrete sections which remained unpainted and frame the house entrances of the buildings designed by Büning have recently been properly restored. These parts played an important role for rational building.

The gallery house by Salvisberg has not been restored, yet. For this house exists a restoration concept. Also unrestored are a small part of the garden side of the long ribbon by Salvisberg at Aroser Allee as well as individual parts of blocks in the section designed by Ahrends as well as ribbons at block margins at Romanshorner Weg. These works will be carried out in the next few years.

Outdoor facilities
Restoration of the outdoor facilities started together with the restoration of the buildings and the first step was to
re-create the green spaces. Only fragments of Ludwig Lesser’s concept survived. Two of the semi-public courtyards at the ribbons with the fan-shaped structure in the section designed by Bünning could be renewed.

The outdoor facilities in the large eastern block of the section by Bruno Ahrends were restored in 2001 on the basis of a set of rules for the outdoor facilities. It was not possible to restore completely the original design by Lesser since the high-quality changes were respected. For functional reasons allowances were made with respect to the paving materials. The result will be a model for future restorations of outdoor facilities. Also the playgrounds and outdoor facilities at the kindergarten were restored.

Großsiedlung Siemensstadt (Ringsiedlung)

The restoration of the sections designed by Scharoun, Häring and Henning in 1984–1986 aimed at recreating the original appearance and quality as far as possible. It was based on a stocktaking and investigations for restoration purposes. Unfortunately the discovered constructional damage and economic considerations made it necessary to deviate occasionally from the original image. Severe constructional damage was discovered especially in the kidney-shaped balconies with steel-pipe structure and the pruesswand brickwork of the attics in the nine ribbons by Häring. The balconies had to be refurbished completely. Their steel-pipe structures had to be exchanged and the parapet cladding of brickwork in various shades of yellow had to be renewed. It was impossible to preserve the original unpainted lime plaster. All buildings got a new smooth plaster with a beige mineral paint coat. Thus it was possible to create an appearance which is almost the same as the original one. In 2003–2004 another refurbishment of the balconies of the Häring ribbons began which preserves their characteristic organic shape.
Also the light parapet shell of the rounded balconies of Scharoun’s building at Jungfernheideweg 1 at the corner of Mäckeritzstraße were severely damaged. They had been executed as plaster fabric wall during the reconstruction in 1949–50. Only parts of the two Scharoun blocks at the funnel-shaped entrance to the housing estate could be restored in 1985–86. Plaster and paint coats have been restored at the street fronts at Jungfernheideweg and at small sections on the yard sides. At the entrance of the housing estate Scharoun’s concept of carefully differentiated shades of white, yellow and ochre coloured façade elements makes a striking impact again even if now, twenty years after the restoration, some damage of plaster appears again. The head-building by Scharoun at Jungfernheideweg 1 has been preserved in the version in which it was rebuilt and which was authorised by Scharoun.

At the same time began in 1984 the restoration of the ribbon buildings by Paul Rudolf Henning at Heckerdamm. They did not have any constructional damage.

Before the entire housing estate became a protected monument in 1995 was renovated the staircase window band of the eastern ribbon by Walter Gropius at Jungfernheideweg. Instead of the narrow iron profiles of the original glazing the staircases got new installations with broader aluminium profiles and a different subdivision of the window panes. The ribbon on the opposite side still has its original glazing. Already in 1988/89 it was possible to re-create the building at the corner of Jungfernheideweg – Goebelstraße whose urban structure and architecture had been changed during reconstruction after the war. The restoration was based on a design by the architects Hilmer & Sattler which emulated the functional style of Gropius’ design.

The balconies of the long ribbon by Otto Bartning (Goebelstraße 21–113) were refurbished in 1998. The concrete ceilings of the double balconies which had developed constructional damage were not thoroughly repaired but got additional steel pipe support structures. This destroyed the original image of light, floating rows of balconies.

The head-building of Goebelstraße 1–9 at the eastern end of the Bartning ribbon (designed in 1955–56 by Hans Scharoun) was renovated in 2000. This renovation restored the original pink colour and the contrasting colour of the parapets on the rear façade.

The renewals in the 1980s and 1990s recreated the authentic appearance of these parts of the housing estate. Beside some parts of the section by Hans Scharoun also the street side of the Bartning block, the block margin buildings by Fred Forbat at Geißlerpfad and the two rib-
bons by Walter Gropius still await restoration. The authorities intend to restore the remaining parts of the housing estate during the next few years.

Outdoor facilities
The principle structure of the spaces has been preserved also as far as the outdoor facilities are concerned. Thanks to the regular re-planting of trees to replace losses it was possible to preserve the original park-like character of the outdoor facilities.

Yet, the appearance of the “Green centre” is disturbed by additions like garages, playgrounds and waste bin areas. Trees which were added later disturb the originally installed waste bin sheds. When the Lombardy poplars in the streets were removed the estate of Siemensstadt lost an important design element.

In 2003 was produced a park maintenance documentation which took stock of all existing plants, paving materials and installations, assessed them with consideration to the historic development and on this basis elaborated a development concept which will be implemented during the next few years.
WORLD HERITAGE NOMINATION • HOUSING ESTATES IN THE BERLIN MODERN STYLE

4. B Factors affecting the property
None of the nominated settlements is under major pressure to change which might result from regional development plans or traffic concepts, environmental influence, natural catastrophes or increased tourism. The only risk potential for the authentic character of the settlements might arise from change of use, need for constructional changes, need to react to noise protection requirements, increased privatisation which might cause individual changes of houses and gardens or a change of the need for service facilities (e.g. waste bin areas). This means that the management of the heritage must provide instruments for defence against risks (see also number 5e).

(I) Development Pressures

Gartenstadt Falkenberg
There is a general development pressure at the margins of Berlin where there is still an abundance of building land. For Gartenstadt Falkenberg any rounding off or extension of the adjacent residential areas would not create risks for the existing monument. The new garden town Falkenberg which is being developed on adjacent land in the South by “Berliner Bau- und Wohnungsgenossenschaft von 1892” re-defines the garden town concept in the sense of Taut’s ideas. However, the access to the new residential area is through Gartenstadtweg (2nd development phase of the Taut settlement). This may cause an increased traffic load.

No constructional changes by the tenants need be feared because also the row houses of Gartenstadt are owned by the cooperative. Additionally the owner, i.e. the building cooperative Baugenossenschaft von 1892 exercises more control over the tenants.

Probably the inhabitants will be exposed to more noise since the settlement is located near the airport of Berlin-Schönefeld for which plans for extension exist. The management plan will have to take timely precautions for the resulting need for noise-protection windows which might become a risk for the appearance of the buildings.

Siedlung Schillerpark
We cannot identify a particular pressure to change which might impair the existing housing estate. The cooperative does not intend to privatise the houses.

Großsiedlung Britz (Hufeisensiedlung)
For the Großsiedlung Britz we can also state that the surrounding residential, sports and green areas and allotment gardens will not create any urban development influence with might disturb the housing estate. On the other hand the privatisation of the row houses creates pressure to adapt them and change their uses and this may lead to constructional changes.

Wohnstadt Carl Legien
No negative impact need be expected for this housing estate since the residential estate and a buffer zone reaching beyond its limits are protected by a regulation for preserving the historically important buildings. At the western access from Prenzlauer Allee to the residential estate is located a small amorphous and underdeveloped area. An existing development plan envisages for this area a narrow band of residential buildings to act as a buffer zone to Wohnstadt whereas at Prenzlauer Allee the zoning plan shows a mixed area for housing and small commercial uses. In this respect the urban development plans have to be revised.

After the thorough refurbishment and restoration of the houses rents were increased. This might have lead to a change in the social structure of the inhabitants. For counteracting such a development the authorities approved a regulation protecting the social environment together with the approval of the maintenance regulation in 2003. (see also number 5 c–d)

Weiße Stadt
We do not identify any current or long-term risks for the housing estate. However, since privatisation has started for entire sections of Weiße Stadt the need for monitoring might increase so that the uniform appearance of the large housing estate as well as its authenticity and integrity can be preserved. The land-use plan or respectively development plans assure that the surrounding areas will be used for purposes and in ways which do not endanger the monument.

A supermarket with car park was recently erected on the southern side of Emmentaler Straße opposite the section designed by Bruno Ahrends. Its design has been adapted to the functional style of the housing estate’s buildings. There is no risk that more of these facilities will be erected at this place since a development plan for the area to the immediate south of this land was established for preserving the existing allotment gardens.

Großsiedlung Siemensstadt (Ringsiedlung)
Since the buildings of the Ringsiedlung are surrounded nearly on all sides by other housing estates which are protected as monuments there is no current or future risk. The only existing impairment of the appearance of the housing estate results from the commercial buildings (supermarket) at the southern access area which disturbs the gate-like impression designed by Hans Scharoun at the corner of Jungfernheideweg with Popitzweg. Scharoun was not able to implement here his urban development concept which had been designed in line with a traffic plan of that time. The change of the traffic plan resulted in an open space at this location. This space was then used for erecting commercial buildings some of which
are not used now. This means that the access to the housing estate needs urban development measures.

(II) Environmental pressures

None of the housing estates is exposed to any negative influence beyond the measure that is usual for big cities. Particular damage resulting from environmental impacts are not known. The pollution of the façades which results from environmental impacts will be removed during thorough restorations. Particular exposure to noise can be identified only for parts of Gartenstadt Falkenberg and the Siedlung Schillerpark and Weiße Stadt. Noise emission has been reduced by noise bunds along the throughway and along the railway line which pass the gardens of the houses in Gartenstadtweg at Gartenstadt Falkenberg. Weiße Stadt and Schillerpark are exposed to noise caused by the airport of Tegel. The noise exposure to date has not lead to the installation of noise protection windows at the housing estate Weiße Stadt. Some of the box-type double windows of the flats at the nearby Siedlung Schillerpark have been complemented by noise-protection glazing which was attached inside. This is in line with the requirements for the preservation of monuments. This measure did not disrupt the appearance of the buildings. Moreover the authorities intend to close down the airport at Tegel after the new airport at Schönefeld has been opened.

(III) Natural disasters and risk preparedness

Berlin is located in a region where there is no risk of natural catastrophes. There is no special fire risk either.

(IV) Visitor/tourism pressures

Already now all housing estates are visited by groups of people who are interested in architecture and do not represent a risk for the monuments. Berlin has become (in particular after the re-unification of the two parts of the city) an important centre of international tourism. The expected increase of the number of visitors does not create any particular burden for the housing estates, either. In future care for the visitors will be provided by a visitors’ management organisation.

(V) Number of inhabitants within the property and the buffer zone

<table>
<thead>
<tr>
<th>Housing Estate</th>
<th>Nom. Area</th>
<th>Buffer Zone</th>
<th>Total</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gartenstadt Falkenberg</td>
<td>230</td>
<td>100</td>
<td>330</td>
<td>2005</td>
</tr>
<tr>
<td>Siedlung Schillerpark</td>
<td>740</td>
<td>890</td>
<td>1630</td>
<td>2005</td>
</tr>
<tr>
<td>Großsiedlung Britz (Hufeisensiedlung)</td>
<td>3100</td>
<td>3500</td>
<td>6600</td>
<td>2005</td>
</tr>
<tr>
<td>Wohnstadt Carl Legien</td>
<td>1200</td>
<td>1800</td>
<td>3000</td>
<td>2005</td>
</tr>
<tr>
<td>Weiße Stadt</td>
<td>2100</td>
<td>1900</td>
<td>4000</td>
<td>2005</td>
</tr>
<tr>
<td>Großsiedlung Siemensstadt (Ringsiedlung)</td>
<td>2800</td>
<td>2350</td>
<td>5150</td>
<td>2005</td>
</tr>
</tbody>
</table>

(Source of estimated numbers of inhabitants: Statistisches Landesamt Berlin (office of statistics of Berlin), ZDC Regionales Bezugsysterm (ZDC regional reference system))
5. PROTECTION AND MANAGEMENT OF THE PROPERTY
5. A Ownership

Gartenstadt Falkenberg
All buildings of the housing estate are owned by the co-operative

Berliner Bau- und Wohnungsgenossenschaft
von 1892 e. G.
Knobelsdorffstraße 96
14050 Berlin
Germany

Siedlung Schillerpark
All buildings of the housing estate are owned by the co-operative

Berliner Bau- und Wohnungsgenossenschaft
von 1892 e. G.
Knobelsdorffstraße 96
14050 Berlin
Germany

Großsiedlung Britz (Hufeisensiedlung)
Gemeinnützige Heimstätten-Aktiengesellschaft (GEHAG) GmbH
Mecklenburgische Straße 57
14197 Berlin
Germany

Several years ago began the gradual privatisation of the individual houses.

Wohnstadt Carl Legien
BauBeCon Immobilien GmbH
Schützenallee 3
30519 Hannover
Germany

Weiße Stadt
Gemeinnützige Siedlungs- und Wohnungbaugesellschaft Berlin mbH (GSW)
Kochstraße 22
10969 Berlin
Germany

Several years ago began the gradual privatisation of the individual flats.

Großsiedlung Siemensstadt (Ringsiedlung)
Gemeinnützige Siedlungs- und Wohnungbaugesellschaft Berlin mbH (GSW)
Kochstraße 22
10969 Berlin
Germany
5. B Protective designation

All six of the nominated housing estates are protected by the Denkmalschutzgesetz Berlin (law on the preservation of historic buildings and monuments of Berlin) (DSchG Bln) of 24th April 1995 as monument areas (applying for the total premises) according to Section 2 paragraph 3 DSchG Bln and they have been entered in the Berlin register of historic places (Section 4 DSchG Bln) (official gazette of Berlin (51)2001, no. 29 of 14th June 2001, p. 2261 ff.) The protection covers all structures of the housing estate inclusive of the outdoor facilities and water bodies which are related to them.

Further, the outdoor facilities of the monument areas of Gartenstadt Falkenberg and Weiße Stadt as well as part of the monument area of Siedlung Schillerpark are protected as historic gardens according to Section 4 paragraph 4 DSchG Bln and entered in the Berlin Register of Historic Places.

Below we explain for each of the housing estates since when the entire area or parts of the area have been protected.

**Gartenstadt Falkenberg**

Gartenstadt Falkenberg has been entered in the district Register of Historic Places of East Berlin on the basis of a resolution of the East Berlin government (government resolution MG 432/77) of 21st September 1977 and since then it has been subject to the stipulations of the law on the preservation of monuments in the GDR (Denkmalpflegegesetz – Law on the preservation of historic places and monuments) of 19/06/1975. After the re-unification of the two German states in 1990 the effectiveness of the Berlin government resolution was confirmed and the housing estate was acknowledged as architectural monument according to the stipulations of the then applicable Law on the Protection of Historic Places and Monuments of 22nd December 1977 and entered in the Register of Architectural Monuments. Since the Berlin Law on the Preservation of Historic Places and Monuments has been amended in 1995 the housing estate has been protected as historic area and it has been entered as such in the Register of Historic Places.

**Großsiedlung Britz (Hufeisensiedlung)**

The central area of Großsiedlung Britz (Hufeisensiedlung) became protected as architectural monument initially according to the annex to Section 24 paragraph 2 of the building regulations of Berlin in the version of 21st November 1958 and when the Berlin Law on the Preservation of Historic Places and Monuments (DSchG Bln) of 22nd December 1977 came into force it was entered in the Register of Architectural Monuments. Since the Berlin Law on the Preservation of Historic Places and Monuments has been amended in 1995 the housing estate has been protected as historic area and it has been entered as such in the Register of Historic Places.

**Wohnstadt Carl Legien**

Wohnstadt Carl Legien has been entered in the district Register of Historic Places of East Berlin on the basis of a resolution of the East Berlin government (government resolution MG 432/77) of 21st September 1977 and since then it has been subject to the stipulations of the law on the preservation of monuments in the GDR (Denkmalpflegegesetz – Law on the preservation of historic places and monuments) of 19/06/1975. After the re-unification of the two German states in 1990 the effectiveness of the Berlin government resolution was confirmed and the housing estate was acknowledged as architectural monument according to the stipulations of the then applicable Law on the Protection of Historic Places and Monuments of 22nd December 1977 and entered in the Register of Architectural Monuments. Since the Berlin Law on the Preservation of Historic Places and Monuments has been amended in 1995 it has been protected as historic area and it has been entered as such in the Register of Historic Places.

**Weiße Stadt**

Weiße Stadt became protected as architectural monument initially according to the annex to Section 14 paragraph 6 of the building regulations of Berlin in the version of 13th February 1971 and when the Berlin Law on the Preservation of Historic Places and Monuments (DSchG Bln) of 22nd December 1977 came into force it was entered in the Register of Architectural Monuments. Since the Berlin Law on the Preservation of Historic Places and Monuments has been amended in 1995 it has been protected as historic area and historic garden and it has been entered as such in the Register of Historic Places.
The part of Großsiedlung Siemensstadt which is located in the district of Spandau, three blocks by Hans Scharoun at Jungfernheideweg and at Mäckeritzstraße became protected as architectural monument initially according to the annex to Section 24 paragraph 2 of the building regulations of Berlin in the version of 21th November 1958 and when the Berlin Law on the Preservation of Historic Places and Monuments (DSchG Bln) of 22nd December 1977 came into force it was entered in the Register of Architectural Monuments. Since the Berlin Law on the Preservation of Historic Places and Monuments has been amended in 1995 the part of it which is located in Spandau and the adjacent area of the estate in the district of Charlottenburg have been protected as overall historic area and they have been entered as such in the Register of Historic Places.

5. c Means of implementing protective measures

Protection and maintenance regulations
The Berlin Law on the Preservation of Historic Places and Monuments (DSchG Bln) of 24th April 1995 comprises regulations concerning the tasks, the object and organisation of monument protection in Berlin (Sections 5–7 DSchG Bln), general regulations concerning protection (Sections 8–10 DSchG Bln) as well as measures for protecting and preserving monuments and historic places, public grants and procedures (Sections 11–15 DSchG Bln).

Below we summarise the most important regulations for the protection and preservation of monuments and historic places:

When the authority for the preservation of monuments and historic places of Berlin declares a place monument or historic place and enters it in the Register of Monuments and Historic Places its owner becomes obliged to preserve the monument (Section 8 DSchG Bln) and its immediate environment (Section 10 DSchG Bln). The owner of the monument in his position of party authorised to dispose of it becomes obliged to take reasonable measures for preserving and repairing it, to treat it properly and protect it against risks. The relevant authority for the protection of monuments may require him to carry out certain measures for preserving the monument. Alternatively and in case of imminent danger for the existence of the monument the relevant authority for the protection of monuments may have the necessary measures carried out on its own initiative.

Any alteration of the appearance, partial or complete removal, repair, reconstruction or change of use of the monuments requires the consent of the relevant authority for the protection of monuments. The same applies for accessories and equipment of the monument to the extent to which they form together with the monument an entity with monument value. The law also prohibits that the immediate environment of a monument is altered by erecting or changing structures, shaping the public or private areas which are not built up or by creating other changes in such a way that the characteristics and the appearance of the monument suffer essential impairment. This applies in case this environment is essential for the appearance of the monument.

The immediate environment of a monument is that area within which any utilization of properties or public areas for building or for other purposes has an essential impact on the monument. Any permits may be connected with conditions and requirements. Any changes and measures carried out at the monument must be documented. In case any measures are carried out without permission the authority may stop the works and require that the previous state is re-created. The party which is authorised to dispose is obliged to grant the representatives of the monument protection authorities access to the properties, buildings and rooms and to provide the necessary information and documents for supporting these representatives in fulfilling their tasks. The authorities may impose large fines in case of violation of any of the above regulations.

The authority for approval is in each case the respective district office of Berlin represented by the Lower monument preservation authority. On the basis of the Law on the Preservation of Historic Places and Monuments it will decide on the projects from the point of view of monument preservation both for projects which require a building permit and for projects which do not normally require a building permit under the building regulations. The Lower monument preservation authority will make its decisions in agreement with the relevant special purpose authority (Landesdenkmalamt (state monument preservation office) of Berlin). In case the two authorities are unable to find an agreement the Berlin government office. The Lower monument preservation authority will make a decision after having heard both the Lower monument preservation authority and the state monument preservation office.

Since Wohnstadt Carl Legien is part of a formally established preservation area (BauGB Section 172 paragraph 1 sentence 1) it is additionally subject to a preservation regulation of 2003 (official gazette of Berlin (GVBL) of 02/04/2003, GVBL 59.2003, no. 14, p. 150) and of 08/10/2003 (GVBL 59.2003, no. 35, p. 482). According to this regulation any “removal, alteration of structures or alteration of the utilisation of structures in the covered area require permission”. The necessary permits will be granted by the district office of Pankow of Berlin, department for urban development, urban planning office (see also figure 5d).
5. D. Existing plans related to municipality and region in which the proposed property is located

Development plans and monument preservation plans

According to the Baugesetzbuch (German Building Code BauGB) development plans are the most important instruments for guiding and controlling the urban development of a community and they must also take into account the interests of monument preservation (Section 1 paragraph 6 BauGB). The process of establishing development plans is divided into the preparatory phase of setting up non-binding development plans (consisting of a Flächennutzungsplan (land-use plan) and bezirklicher Bereichsentwicklungsplan (district area development plan) for the entire territory of the community and a binding Bebauungsplan (development plan) for individual parts of the community’s territory, here in connection with the Baunutzungsverordnung (land-use act, BauNVO) which defines the kind and extent of structures, type of buildings and the degree to which the land may be built up. The Building Code regulates for instance the permissibility of projects and in the particular urban development legislation it stipulates the formal establishment of rehabilitation areas (Section 142 BauGB), development areas (Section 165 BauGB) and preservation areas (Section 172 BauGB).

Due to the division of Berlin after 1945 building legislation developed differently in East and West Berlin and these differences still influence the currently valid building legislation even after the re-unification of the two German states. In the western districts still applies the land-use plan of 1958/60 which has been transferred as development plan according to the Bundesbaugesetz (Federal building act BBauG) of 1960 (renamed Baugesetzbuch (Building Code BauGB) in 1987. In the practice of development law the land-use plan now plays the role of alternative development plan. A comparable set of instruments which covers the entire area does not exist for the East Berlin districts. Legally binding development plans for these districts had to be established in 1990. In those areas of the East Berlin districts which are not covered by development plans building permits are granted according to Section 34 Building Code (BauGB).

The urban development department of each district office establishes its own development plans in coordination with the other district authorities as well as with the development departments of the governmental urban development authorities and with the special purpose authority, i.e. the Landesdenkmalamt of Berlin.

The Landesdenkmalamt or the relevant monument preservation authority may require the establishment of monument preservation plans, catalogues of preservation measures, maintenance documentations, etc. (Section 8 paragraph 3 DSchG Bln). In the land-use plan of Berlin in its latest version of 2004 and the district area development plans of the districts all six housing estate areas are marked as residential areas. For the housing estate areas and their buffer zones (except Gartenstadt Falkenberg and Wohnstadt Carl Legien) exist development plans which guarantee the kind and extent of the existing uses, i.e. mainly the residential use. These plans also guarantee the preservation of the green and leisure spaces within the buffer zones. Monument preservation plans exist mainly for the gardens and outdoor facilities which belong to the protected areas. For some of the housing estates exist restoration concepts and catalogues of measures to be taken for the existing structures. In principle there are for all six housing estates detailed stocktaking documents and findings of investigations for restoration purposes which provide the basis for restoring the historic appearance of the housing estates. The following detailed plans exist:
Gartenstadt Falkenberg

- For the southern extension of the garden town which is being carried out currently on the basis of the results of an urban development competition of 1992 development plans for the individual development phases (XV-37a – XV-37e) were established as from 1994. This extension involves only part of the buffer zone. The development plans stipulate open, low structures and green spaces which emulate the residential structures in the historic garden town. To date none of these plans has been formalised.

- Since 2001 exists a monument preservation plan for the outdoor facilities and the gardens (see figure 7c).
2. Siedlung Schillerpark

**Siedlung Schillerpark**

- Only for the south-eastern part (between Oxforder Straße and Barfusstraße) of the nominated area exists a development plan (III–1) since 1954 and it states that residential buildings are the only permissible development. The two blocks between Dubliner Straße and Oxforder Straße are marked as residential area in the land-use plan of 1958/60.

- The land-use is also defined for the green spaces, the churchyard and the allotment gardens. In the land-use plan of 1958/60 Schillerpark and the churchyard St. Johannes-Evangelist are defined as green spaces. The allotment garden colony “Freudental” has been defined in 1992 in the binding development plan (III–197).

- The buffer zones include in the South-East an area surrounded by Barfusstraße and Schwyzter Straße which comprises a church, a youth home and homes for the elderly. This area is covered by the development plan III–61 which has been adopted in 1975 and otherwise defines the area as general residential area.

- For the residential buildings and green spaces which have not yet been restored exist concepts for restoration measures (see figure 7c). Since 1991 exists a refurbishment concept for the structures and in 2003 has been established a garden monument preservation plan for the outdoor facilities.

---

Fig. 109: Siedlung Schillerpark, development plans for the nominated area and the buffer zone, 2005
Großsiedlung Britz (Hufeisensiedlung)

- The land-use plan defines as residential area the entire area of the horseshoe and the row houses around it up to Parchimer Allee (development phases I und II) as well as the multi-storey buildings of the development phases III to V east of Buschkrugallee. The last development phase (VII) between Parchimer Allee and Talberger Straße is covered by the development plan XIV-7/2 of 1963 which defines this area as residential area.

- The uses of the buffer zone areas (housing, allotment gardens, park, sport grounds) are secured by development plans or the land-use plan.

- In 2003 has been established a concept for the handling of the outdoor facilities of the Hufeisensiedlung. Since 2001 exists a catalogue of monument preservation measures for preserving the historic appearance of the row houses of the first and second development phases north of Parchimer Allee. To date the gradual renewal of the houses was carried out on the basis of the expert opinion on the existing monument of 1984–1991 (see figure 7c).
Wohnstadt Carl Legien

• The housing estate area of Wohnstadt Carl Legien is located within a preservation area which has been formally defined in 2003 on the basis of the Building Code (BauGB) and within this area apply the stipulations of a preservation regulation (see figure 5c). They stipulate the preservation of the historic façades and roofs with their elements, materials and colours. For new structures apply certain design principles which are based on the design of the existing buildings.

• With the exception of a small area between Prenzlauer Allee, Erich-Weinert-Straße and Küselstraße the preservation area coincides with the buffer zone. In 1993 a development planning procedure (IV-12) has been initiated which stipulates a mixed area for residential purposes and non-interfering commercial use as well as a strip of land exclusively for residential purposes to function as transition to the Wohnstadt.

• Since 2001 exists a plan for the preservation and restoration of the historic garden which applies for the outdoor facilities which have not yet been completely restored (see figure 7c). The restoration of the multi-storey residential buildings was completed in 2005.
Weiße Stadt

- Two development plans cover parts of Weiße Stadt. One part of the housing estate buildings by Otto Rudolf Salvisberg is located in the North. This part is covered by the development plan XX-30 of 1960 in which it is defined as general residential area. In the south-eastern part two ribbons at block margins by Wilhelm Büning on the southern side of Emmentaler Straße are covered by the development plan XX-220 which mainly aims at preserving the allotment garden colony "Mariabrunn" and whose procedure started in 1986. The remaining area of Weiße Stadt is defined as residential area by the land-use plan.

- Within the buffer zone apply two development plans (XX-53 and XX-53-1) of 1965 and 1971 which also define the areas as residential areas.

- Action plans of 1984 and 2000 assure the restoration of the outdoor facilities. To date the gradual renewal of the houses was carried out on the basis of the expert opinion on the existing monument of 1981 (see figure 7c).
Großsiedlung Siemensstadt (Ringsiedlung)

- Development plans have been established only for some parts of the housing estate. Most of the area of this housing estate is defined as general residential area by the land-use plan. The development plans assure the current use: plan VII-168 of 1975 for the buildings by Fred Forbat at Geißlerpfad, plan VII-179 of 1973 for the eastern ribbon by Walter Gropius at the block margin along Jungfernheideweg. Both development plans stipulate residential use with general services (school) but they also provide for parking lots. Where these have been established at the front gardens of the Forbat ribbon at Geißlerpfad they disturb the appearance of the housing estate.

- The development plan VIII-9 of 1960 marks the area in the district of Spandau between the Siemens railway line, Jungfernheideweg and Siemensdamm as mixed area for residential and commercial use and expressly protects the ribbon residential building by Hans Scharoun at Jungfernheideweg 4–14. However, the way in which the protection has been formulated also protects the supermarket at the access to the housing estate.

- In 2003 was adopted a maintenance documentation with action plans for the gardens which belong to the Ringsiedlung. The renewal of the buildings follows a 1984 expert opinion for restoration purposes on the existing monument (see figure 7c).
ERHALTUNGSVERORDNUNG OSTSEE-/ GRELLSTRASSE

INFORMATIONEN ZUM ERHALTUNGSGEBIET

BEZIRKSMAT PANKOW VON BERLIN
ABTEILUNG STADTENTWICKLUNG

Fig. 114: Preservation regulation for the area Ostseestraße/Grellstraße with Wohnstadt Carl Legien, 2003
5. E Property management plan or other management system

I. Fundamentals

II. Objectives
   Conservation and development of the existing monuments
   Assuring financial resources
   Assuring residential use
   Promotion of knowledge and acceptance of the housing estates

III. Actors
   The controlling body
   The owners
   The inhabitants
   The monument preservation authorities
   External competence centres and experts
   Politics and administrations in the districts
   Cooperation partners

IV. Instruments and fields of action
   Legal and planning bases
   Financing
   Monument preservation plans and other expert opinions
   Public relations activities
   Tourism concept

V. Control and reporting (monitoring)

I. Fundamentals
Until today the chosen housing estates of the Berlin Modern Style have preserved their significance as exemplary social residential areas with outstanding artistic quality. During the first decades of the 20th century social mass housing development produced in Berlin new concepts for the spatial and social order of the city which have been preserved in the six nominated housing estates as they were handed down to us. They combined novel designs and diversity of structure and forms of buildings with intelligent integration into urban structures for developing appropriate flats in healthy environments. The nominated housing estates are well accepted by their inhabitants and should preserve their character as is has been described above.

The management plan aims at preserving these qualities. Its objective consists in sustainably preserving the nominated housing estates in the sense of the UNESCO convention on the protection of the heritage of humankind and in the sense of the international charters of Venice, Washington and Florence. This includes measures for protecting, preserving and restoring the housing estates as well as all necessary measures for preserving them as attractive residential areas. The objective is not to preserve them as museums but to provide for their sustainable development as special monument locations and residential locations by adapting them to changing residential needs while adhering to the requirements of monument preservation.

The management plan can only be implemented by means of a well adjusted network which includes owners, residents, architects, landscape architects, planners, experts and authorities. The monument preservation authorities are facing the difficult task of initiating and guiding the complex process of cooperation between all of these parties. So, communication between these parties plays a central role for preserving the world heritage.

Below we present the current version of the management plan and the fundamental objectives, the main actors, instruments and fields of action and the monitoring as they are laid down in this plan. Specific stipulations are to be made for each of the housing estates and for the cooperation projects. The plan must be reviewed and if necessary complemented and extended on an ongoing basis. This means that the responsible political bodies on regional and local level must be kept informed and involved.

II. Objectives
   Conservation and development of the existing monuments
The primary objective of the management is to protect, preserve and reconstruct the historic structures and outdoor facilities of the housing estates and their social and utilisation structure.

   • Changes which become necessary for constructional reasons or due to refurbishments must be controlled in such a way that they do not impair the authenticity and integrity of the housing estates and their urban features and outdoor facilities.

   • Alterations of the architectural and outdoor features are to be reversed as far as necessary and on the basis of monument preservation plans.

   • For assuring ongoing proper preservation of the buildings we intend to develop action plans in cooperation with the owners. Any new development within the buffer zones must take into account the scale, the design and the utilisation of the existing monuments of the housing estates.

   • In some of the housing estates privatisation will continue in future. The management plans for those housing estates will have to take into account also the changing ownership relations.

   • The public green and traffic areas will be preserved as essential parts of the individual housing estate concepts.
This means that statements concerning the road profiles and surfaces as well as structures of vegetation will have to be taken into account by the management plans.

Assuring financial resources
We can assume that the financial means which are required for preserving and renewing the housing estates – tasks which largely have to be fulfilled by the owners – will be provided within the framework of regular management by the owners. The fact that investments which become necessary for preserving the monuments can be depreciated and thus reduce the tax burden contribute to assuring the finance.

In individual cases public grants and special purpose contributions from third parties may have to be acquired for enhancing the financial resources. Potential world heritage locations fulfil the preconditions of the federal programme of “National wertvolle Kulturdenkmäler” (valuable national cultural monuments) thus entitling them to grants from this programme.

Assuring residential use
The nominated housing estates are used exclusively for residential and related purposes. The objectives include to prevent any utilisation which might impair the excellent residential quality for avoiding for example that flats or houses become disused or that social instability and economic difficulties related to maintenance occur. This also applies for the buffer zones which consist largely of residential buildings or of parks, graveyards or sports grounds – uses which do not impair the monuments. Any further densification of buildings in the housing estates is excluded, too.

Promotion of knowledge and acceptance of the housing estates
For preserving and maintaining the nominated housing estates it is necessary to enhance the awareness of their value and to establish their preservation as monuments as a generally acknowledged objective. By means of comprehensive public relations activities we want to achieve that many citizens and visitors of Berlin identify with the housing estates.

In addition to intensifying media and publication activities we try to establish cooperation with other world heritage locations and other cities with important Modern Style housing estates so that we can exchange experience and disseminate the knowledge about the significance of residential development as cultural heritage of the 20th century.

We will organise exhibitions and other offers for providing information in cooperation with scientific and cultural institutions of the Berlin region which focus on neues bauen in their training and education on the subject of monument preservation or world heritage preservation or in their research, collections and exhibitions.

The fact that the housing estates are well known among experts is a good precondition for making them more widely known to visitors by means of a marketing concept which still has to be developed. Tourism in Berlin provides promising opportunities since the city is one of the most important centres of city and cultural tourism in Europe and the housing estates can be easily reached by public means of transport. Since the housing estates are not in central locations and have a low building density there is no risk that they might get under excessive pressure by tourism.

III. Actors
The owners and the monument preservation authorities as well as experts working by their order are the main actors for preserving and developing the housing estates. Their indispensable partners are the inhabitants of the housing estates as well as the concerned political decision makers and district administrations and also the experts and institutions with particular competence in the field of monument preservation and the interested public.

The controlling body
The complexity of the management tasks requires that the various forms of expertise are bundled and that all the important actors in the housing estates and external experts and cooperation partners are brought together in a well functioning body. Cooperation with established bodies of monument preservation like the Landesdenkmalrat (state monument council) and the commissions for monument protection of the chambers may also be helpful.

The owners
Within the framework of regular operation the owners make the largest financial contributions for the ongoing maintenance and preservation of the monuments. When it becomes necessary they also employ experts for having produced opinions and monument preservation plans. They agree this kind of decisions with the monument preservation authorities. The owners are also involved in the monitoring procedures since they have the key information on the amount of finance used and on the state of conservation of the monuments.

For the housing companies it is very important to communicate with their tenants and the purchasers of flats or houses for assuring that these inhabitants and individual owners take a positive attitude towards the efforts to preserve and restore the monuments. The housing companies are also important partners in public relations activities which aim at target groups outside the housing estates.
The inhabitants
With their behaviour and their demands the inhabitants exercise a decisive influence of the state of conservation and on the development of the settlements and their perception by the public. Thus, they are not only a target group for public relations activities but one of our objectives is to motivate them to make own contributions to preserving the monuments and act as multipliers thus going beyond the satisfaction of their own demand for counselling and information. Involving them as partners in the management of the monuments is an important precondition for managing the monuments successfully.

The monument preservation authorities
According to the stipulations of the Berlin Law on the Preservation of Historic Places and Monuments the monument preservation authorities must fulfil their legal which range from the protection under administrative law through expert counselling, providing financial resources by means of tax privileges or grants up to urban research, publications and public relations activities.

They have to play the leading role in monitoring and other forms of reporting which may result from the inscription of the housing estates into the world heritage list. Further, they must also initiate and accompany special tasks which may turn out to be necessary or desirable under this management plan.

External competence centres and experts
The preservation of the monuments makes it necessary to involve experts. For investigating the existing monuments, analyses for restoration purposes, setting up monument preservation plans and for restoration and reconstruction activities we need the special competence of experts in conservation and restoration research and development facilities as well as that of architects, landscape architects and regional experts with experience in monument preservation and restoration. With their know-how and creativity they make important contributions for solving problems or even conflicts which may occasionally arise from the management or in relation with it (see also Cooperation partners).

Politics and administrations in the districts
The political actors and administrations in the districts where the settlements are located are important partners for the management since they are responsible for many municipal activities and also since they are close to the locations and thus to any issues that might arise. It is expected that they treat the settlements with more than the usual care and attention. This includes that the settlements get priority in the allocation of finance for maintenance and refurbishment measures when resources are scarce.

In response to this kind of privileged treatment the housing estates as unique cultural heritage will attract an attention to the districts where they are located which will reach far beyond the region.

Cooperation partners
Thanks to the long-standing cooperation with renowned scientific and educational institutions dealing with monument preservation and world heritage management all involved parties are well aware of the special needs of the monuments and any measures are prepared and carried out with excellent quality.

Berlin has already got two world heritage locations each of which is operated and managed by a powerful cultural foundation. In managing the settlements we will of course cooperate with them and with other national and international world heritage locations. This cooperation will be carried out with a focus on both regional priorities and the topic of world heritage locations of the Modern Style.

It will further be useful to cooperate with other cities which possess important housing estates in the Modern Style like Frankfurt am Main, Hamburg and Magdeburg in Germany or Amsterdam, Rotterdam, Moscow and Vienna in other countries.

Providers of grants and foundations may be involved as regional or supra-regional financial supporters of restoration measures in the housing estates.

The region of Berlin and Brandenburg has many institutions of higher education which have set up competence centres for research into the world heritage of the Modern Style and into methods and activities for their management. Among these institutions are in particular the Schinkelzentrum (Schinkel centre) of Berlin Technical University (TU Berlin), the Zentrum für europäische Kulturerbepfl ege (centre for preservation of cultural heritage) at Viadrina in Frankfurt/Oder as the Zentrum für Weltbemanagement (centre for world heritage management) at BTU Cottbus. In addition to the above the TU Berlin offers a post-graduate course in monument preservation and the FH (college) Potsdam and FHTW (Fachhochschule für Technik und Wirtschaft – College for technology and economics) Berlin offer restoration studies. These and other institutions of higher education offer themselves as promising partners for managing the housing estates.

Berlin has the Bauhaus archives, the Berlinische Galerie and the museum of the city as well as the various district museums. These are cultural institutions which are able to present the history and significance of the housing estates of the Berlin Modern Style and their cultural and socio-political context in their exhibitions and they enjoy local, regional and supra-regional attention. To an extent they have own collections which are related to the housing estates and they have long-standing contacts with public and private collectors with related inventories.
Fig. 115: Großsiedlung Britz, expert opinion, 1989, front page
Since Berlin is a centre of international tourism its tourism industry has powerful public and private actors which can integrate into their future marketing and sales activities the housing estates of the Modern Style and also significant follow-up projects like the Bauausstellung (architecture exhibition) of 1957 and 1987.

The housing estates can be easily reached by public means of transport and some of them are located directly at underground or commuter train stations. Thus, the public transport companies may also use their means for providing information on the housing estates in general and/or at the respective locations.

In addition to the Landesdenkmalrat also the chamber of architects and engineers of Berlin has very committed commissions which may support the management of the housing estates and provide counselling.

IV. Instruments and fields of action
A considerable number of legal, planning and monitoring instruments are available for providing sustainable protection of the monuments and the preservation housing estates. Supplementary offers of information and cooperation projects with many actors must complement the above for assuring a proper management of the housing estates. The most urgent task is to develop and implement a concept for tourism.

Legal and planning bases
The legal basis for implementing the objectives of the management plan is the BauöfG (Building Code), the Berlin Law on the Preservation of Historic Places and Monuments and the Berlin Bauordnung (building regulations) (see 5b through 5d). For the housing estates which are protected as monuments apply the stipulations of the Berlin Law on the Preservation of Historic Places and Monuments (see 5c). This means that any con
structional alterations require the consent of the monument preservation authorities. This also applies for the design of advertising facilities. Major constructional alterations and changes of use require a building permit. The authorities may impose large fines in case of violation of the regulations of the Law on the Preservation of Historic Places and Monuments. Other monument protection instruments prevent that parts of the monuments decay. They require that monuments are preserved, provide that the authorities may take actions for having them preserved in case this is not done by the owners and that unauthorised alterations must be reversed.

Further, nearly all of the housing estates are covered by master plans established in the form of plans indicating the kind and degree of land use by buildings or development plans or at least as land-use plans which assure that they are primarily used for residential purposes. Wohnstadt Carl Legien is not covered by a master plan.

However, it is part of a formally established preservation area according to Section 172 Building Code (BauGB) with a preservation regulation (see 5d). The preservation regulation protects not only the appearance of the Carl Legien housing estate and of its environment but also the social structure of the inhabitants. This means that investments may be reviewed for their impact on the rents (increase) and they may be regulated for preventing that tenants are driven out by rent increases.

Financing
The management plan can only be implemented if enough finance is available. According to the Berlin Law on the Preservation of Historic Places and Monuments the owners of the six housing estates are responsible within the scope of their financial strength for preserving and renewing the monuments (see 5a). They acquire most of the necessary finance within the framework of ongoing operation through the rents or from own incomes if they use the monuments themselves. Further, the owners may depreciate expenses for preserving or reasonably using the monuments of architecture in line with the income tax regulations.

The State of Berlin intends to provide grants for covering expenses which go beyond the ordinary maintenance expenses because they are spent on monuments or for other projects which serve for preserving the housing estates or making them better known. These provisions will be made within the state budget. More grants may be provided on application from the federal programme of “National wertvolle Kulturdenkmäler” (valuable national cultural monuments) and other foundations.

Monument preservation plans and other expert opinions
Monument preservation plans and expert opinions which provide systematic inventories of the appearance of the buildings and of the outdoor facilities provide the qualified basis for preservation measures and repair and restoration works as well as other construction works. The inventories form a main part of the management plan and they must be updated regularly (see 7c).

These expert opinions have already been the basis for the restoration of the façades, roofs and staircases in many parts of the housing estates. The expert opinions contain in particular information on the materials and colours as well as drawings of the following elements of the existing buildings:

- surface structures
- windows and entrance doors
- stair cases and outdoor stairs
- balconies and loggias
- roof structures
- terraces

Further, nearly all of the housing estates are covered by master plans established in the form of plans indicating the kind and degree of land use by buildings or development plans or at least as land-use plans which assure that they are primarily used for residential purposes. Wohnstadt Carl Legien is not covered by a master plan.
• stables and waste bin sheds
• shops
• paths and squares with greenery/gardens
• floor plans

Other monument preservation plans cover the outdoor facilities and the vegetation. For all six housing estates have been established care concepts and actions plans for assuring proper care and reconstruction of the gardens and green spaces. These concepts and plans refer to the following design elements:

• ground plan of the outdoor facilities
• paths and squares
• front gardens, tenants’ gardens, terraces
• special facilities like playgrounds, resting places and waste bin areas
• materials used for paving the paths and squares

• equipment
• vegetation structures and trees

The row houses of the first and second development phase of the horseshoe housing estate are covered by guidelines which make it easier for the district administration of Neukölln to respond to the pressure for alteration which results from the privatisation of the houses. A monument preservation plan based upon available documentation of the existing state of the housing estate is currently being established.

Public relations activities
Planned activities to date:

• a comprehensive publication presenting the world heritage housing estates together with the application for inscription into the world heritage list;
• brochures on the history and significance of the individual housing estates, their state of conservation and measures for their renewal;

• leaflets for the individual private owners with information on how to treat the monument; these leaflets will provide information on the character of protection and the obligations for preserving the monuments;

• exhibitions and other activities for showing the importance of the world heritage (in cooperation with Berlin institutions as shown in the chapter on cooperation partners);

• media information inclusive of more extensive presentation in the internet;

• setting up of information tables in the housing estates;

• citizens’ meetings and lectures;

• public presentation days like the annual “Tag des offenen Denkmals” (European Heritage Day).

Tourism concept
Grants for developing tourism are to be used for creating a tourism marketing and sales concept which covers the usual offers ranging from presentations in the internet and on fairs to setting up sign posts and up to offers for overnight stays, round trips through the locations and guided tours. We will cooperate with the ministry for economics and its partners in the tourism industry for deciding who will be responsible for coordinating the creation of the concept and its implementation.

We expect that many of the above mentioned cooperation partners can be involved in creating and implementing the tourism concept. Our cooperation in the existing marketing activities of the association UNESCO-Welterbestätten Deutschland e.V. (UNESCO world heritage locations Germany) will certainly be very useful in this respect.

The long-term objective of this activity should be to set up a tourism route around the important locations of the Modern Style as it has been already created with EU financial support under the title of “Backstein Gothic route” which is currently being extended to cover also the historic fortresses in the Baltic Sea region.

V. Control and reporting (monitoring)
Monitoring the state of conservation and the renewal of the monuments requires a set of instruments which document and assess the adherence to the principles and criteria of monument protection and preservation and the qualitative changes resulting from any renewal activities. For achieving this purpose the relevant persons collect available information on an ongoing basis and they may acquire additional knowledge by means of tours through the monuments and inspections of the monuments. The purpose of the system is to acquire high quality data and assessments with as little effort and expense as possible for all parties involved.

The owners of the housing estates are of course involved in the regular activities for acquiring data and occasionally participate also architects, landscape architects and other experts. The activities focus on acquiring information on the key indicators mentioned in 6a and on using the questionnaires related to the key indicators. Additionally, the alterations which are approved on the basis of investigations into the existing monuments will also be documented so that these documentations are available for the monitoring.

5. F Sources and levels of finance
The owners are responsible for maintaining and renewing all six housing estates (see figure 5a) and usually they also provide the necessary finance for these purposes. Refinancing of the expenses for current maintenance is assured by the rental revenues.

The Berlin Law on the Preservation of Historic Places and Monuments (DSchG Bln) of 24th April 1995 stipulates that owners are obliged “to take reasonable measures for preserving and repairing monuments” (Section 8 para-
Graph 1). In individual cases owners may claim grants by the federal state of Berlin for covering additional expenses resulting from the obligation to preserve and restore monuments. Further, the current income tax law provides that expenses for the reasonable preservation or reasonable use of architectural monuments may be used for several years for deductions from the taxable income at a rate that is above the usual deductions thus creating a tax privilege for the owners of the nominated housing estates.

The pilot project of restoring the houses of Wohnstadt Carl Legien in 1994 was further supported by grants provided by Deutsche Stiftung Denkmalschutz (German Foundation for Preservation of Monuments).

Finance for the maintenance of public roads, paths and outdoor facilities is provided by the current state budget.

5. G Sources of expertise and training in conservation and management techniques

The preservation and maintenance of the housing estates is supported by the scientific staff of the Berlin monument preservation authorities. The relevant employees are trained art historians, architects, landscape architects or restorers.

With their experience the members of the state monument council give recommendations or support the involved parties in case specific plans are being produced. The state monument council (Landesdenkmalrat) is an expert body which is separate from the administration and according to Section 7 of the Berlin Law on the Preservation of Historic Places and Monuments it acts as consultant for the member of the Berlin government who is responsible for the preservation of monuments.

Moreover the owners also have experienced employees for current repair and maintenance measures. Most of these are architects and civil engineers.

When thorough refurbishment works have to be planned or supervised the relevant contracts are often awarded to architects’ practices having experience in the preservation of monuments. Berlin has a sufficient number of architects, landscape architects, restorers and engineers who have experience in the preservation of monuments. Several university departments and technical colleges are engaged in research and training in this field. Berlin and the surrounding state of Brandenburg have a sufficient number of suitable companies for executing the works.

5. H Visitor facilities and statistics

The publicly accessible parts of the housing estates may be visited any time. Visits are usually made on an individual basis. There are no statistics on the visits. Each year on the “day of the open monument” experts do guided tours through the settlements. These tours always meet an enormous demand. Additional tours may be done on the basis of applications which have to be submitted to the owners and the monument preservation authorities.

Within the Großsiedlung Siemensstadt its owner, the housing company, has set up boards on the public pedestrian paths in 2003. These boards provide information on the history and significance of the Ringsiedlung and its parts. The authorities intend to issue for each of the settlements material with information on the history, architecture, urban development and garden architecture as well as on the significance of the monuments and restoration measures. It is further intended to offer in the internet information on the Berlin world heritage locations.

In the housing estates which are owned by GSW (Weiße Stadt and Siemensstadt) exist guest apartments which may be rented by visitors. The involved parties intend to develop a network of these flats for visiting experts and interested lay people. In Wohnstadt Carl Legien, for instance, two flats have been restored with the original colour scheme by Taut and these flats may be visited. There are plans for making a flat in the housing estate publicly accessible after a corresponding restoration.

No further visitors’ facilities exist to date.
5. Policies and programmes related to the presentation and promotion of the property

Since the architectural and urban development qualities of the Berlin housing estates from the period of the Weimar Republic were re-discovered in the late 1970s the nominated housing estates have been made known to a wider public by means of exhibitions and publications. Until the recent past both the special purpose authorities of the Berlin government and the owners have published brochures on the building and cultural history of their housing estates as well as on the topic of monument preservation. The most recent publication is a brochure of Berliner Bau- und Wohnungsgenossenschaft von 1892 e.G. published in 2004 with the title of "Genossenschaftliche Wohnanlagen von Messel und Taut".

The monument preservation authorities provide advice for the owners concerning the maintenance and the status of monuments and for preventing activities which might interfere with the monuments.

An important instrument for presenting the six housing estates to the population is the annual "day of the open monument" which is organised by the Berlin state monument office in cooperation with the monument authorities. On this day experts guide interested persons through the housing estates. There are plans to produce on each of the housing estates material for the inhabitants, owners and interested parties as information accompanying this application. There are also plans to present this application in a publication. Both actions will contribute to making the six housing estates better known and win them more appreciation.

The relevant parties also intend to make the housing estates better known everywhere in Germany and abroad by means of the Berlin tourism advertisement and to develop a marketing concept for this purpose. The first of these actions was to set up boards at each of the sections by the various architects in the Grosßsiedlung Siemensstadt which provide information on their building and development history. Further, there are plans for integrating the housing estates in the tourist guidance system for Berlin which is under development currently and to approach a wide circle of interested parties through various media including more extensive dissemination through the internet.

5.1 Staffing levels

Among the employees of the Lower monument preservation authorities and the Landesdenkmalamt are graduated architects, garden and landscape architects, art historians and civil engineers (some have a doctor’s degree). In correspondence with the distribution of labour they make decisions independently. Maintenance must be provided by the relevant owners who are obliged to adhere to the stipulations of the Berlin Law on the Preservation of Historic Places and Monuments.
6. MONITORING
6. A Key indicators for measuring state of conservation

Key indicators have been created for assuring that the monuments are preserved and that maintenance and renewal measures apply the principles and criteria for restoration. Regular monitoring actions use questionnaires which have been established on the basis of the key indicators of the management scheme for recording the state of preservation or the relevant data.

The data recordings concerning the key indicators are distributed to the various authorities and owners which are involved in the monitoring activities.

The monument preservation authorities make recordings for the following indicators:

- state of preservation and repair of the monuments
- state of restoration
- amount of grants paid for preservation and restoration
- approvals for restoring and maintaining the monuments
- tax certificates concerning restoration and monument preservation measures
- personnel available for the preservation of the monuments

Recordings on the following indicators are made in cooperation with other special purpose authorities:

- planning (amendments of the development plans)
- infrastructure (number and location of parking lots, type of servicing, pavings)
- burdens resulting from traffic (road and air traffic)
- social structure of the inhabitants
- average rents and land values
- offered information and number of visitors (access to websites)

Recordings on the following indicators are made in cooperation with the owners:

- status of implementation of restoration concepts
- development of state of preservation
- financial expenses for repair, maintenance and care
- owners (privatisations)
- administrative structure
- utilisation (disused flats, commercial and service facilities)

6. B Administrative arrangements for monitoring property

The relevant monument preservation authorities are responsible for the regular monitoring of the nominated housing estates. They have to organise and carry out the regular monitoring and the corresponding reporting. In addition to other special purpose authorities also the owners (housing companies) are invited to participate in the monitoring activities.

The monitoring activities are based on the key indicators which are contained in the questionnaires (figure 6a) and occasionally on further investigations into the state (for instance photographs and planning documents). The questionnaires and the date are continuously recorded as they are found.

In addition to the above employees of the owners monitor the state of the six housing estates by means of regular inspections (see figure 5a). Some of the owners (housing companies) have in the very housing estates offices for administering the housing estates.

6. C Results of previous reporting exercises

All currently available reports and documentations which contain information on the state of preservation of the housing estates are contained under figures 7 b and 7 c (expert opinions on existing state with photographs, investigations, etc.) and under figure 4 a. We do not perceive a deterioration of the state of preservation in those housing estates whose restoration has not been completed to date (Großsiedlung Britz, Weiße Stadt and Siemensstadt) since the housing companies which own them provide proper current maintenance.
7. DOCUMENTATION
Photographs, slides, image inventory and authorization table and other audiovisual materials

All photographs used in the application are stored as image files in the formats tif or jpg or pdf on a separate CD-ROM inclusive of a list with their numbers, captions and sources.

UNESCO is entitled to use and disseminate the photographs and images. Costs for image rights and use of the images and photographs will not occur or will be born by the applicant. However, the permission to unlimitedly use and disseminate the photographs and images does not constitute a transfer of the rights in the photographs and images to UNESCO for exclusive marketing.

Picture credits
Institutions and agencies

Akademie der Künste Berlin:
fig. V, 49, 54–57, 59, 61, 65, 132, 137–139

Architekturwerkstatt Pitz – Brenne, Berlin:
fig. 115, 120–125

Bauhaus Archiv Museum für Gestaltung Berlin:
fig. 130

Berliner Bau- und Wohnungsgenossenschaft von 1892, Berlin:
fig. 52, 53, 77

Bezirksamt Pankow von Berlin:
fig. 114

Bildarchiv Preußischer Kulturbesitz Berlin:
fig. II, IV, VI

Courtesy of The Art Institute of Chicago:
fig. VII

Winfried Brenne Architekten, Berlin:

Richard Büning, Köln:
fig. 129

Filmmuseum Berlin:
fig. III

Gemeinnützige Heimstätten-Aktiengesellschaft GmbH (GEHAG), Berlin:
fig. 10, 58, 118

Gemeinnützige Siedlungs- und Wohnungsbaugesellschaft Berlin mbH (GSW), Berlin:
fig. 119

Landesarchiv Berlin:
fig. 82

Landesdenkmalamt Berlin
fig. VIII, IX, X, XI

Katrin Lesser, Landschaftsarchitektin, Berlin:
fig. 134

Schmidt-Seifert, Landschaftsarchitektur, Berlin:
fig. 45, 74, 94, 116, 126

Senatsverwaltung für Stadtentwicklung, Berlin:
fig. XII, XIII, 1–3, 5, 6, 8, 9, 11, 12, 14, 15, 17, 18, 20, 21, 36, 41, 95, 97, 99, 102, 105, 107, 108–113

in private hands:
fig. 133, 136

Literature
Adler, Leo, Neuzeitliche Miethäuser und Siedlungen. Berlin 1931, p. 164, 53:
fig. 22, 83

Bauwelt (21) 1930, number 48, p. 6:
fig. 60

Bredow, Jürgen, Lerch, Helmut, Materialien zum Werk des Architekten Otto Bartning. Darmstadt 1983:
fig. 128

La Constructione Moderne (47) 1932, Nr. 16:
fig. 62

Deutsche Bauausstellung Berlin 1931, Amtlicher Katalog und Führer, Berlin 1931
fig. 127

Gartenstadt-Mitteilungen der Deutschen Gartenstadtgesellschaft (7) 1913, number 5, p.83:
fig. 76

Gartenstadt-Mitteilungen der Deutschen Gartenstadtgesellschaft (7) 1913, number 6, p. 112:
fig. 48

GEHAG: Die Gehag-Wohnung. Berlin 1931:
fig. 63, 64

Geist, Johann F. Kürvers, Klaus, Das Berliner Mietshaus 1962-1945, München 1984, p. 462:
fig. 46

Keimsche Mineralfarben (advertising), Lohwald near Augsburg, approximately 1931:
fig. 84

Konservierung der Moderne? ICOMOS Journals of the German National Committee XXIV. Leipzig 1977: fig. I


Mohr, Christoph, Müller, Michael, Funktionalität und Moderne. Das Neue Frankfurt und seine Bauten 1925–1933. Köln 1984, p. 249: fig. 80


Posener, Julius, Berlin auf dem Wege zu einer neuen Architektur. Das Berliner Zeitalter Wilhelms II. München 1979, p. 343 fig. 47

Rassegna (5) 1983, number 15, p. 26: fig. 131

Wattjes, Jannes Gerjardis, Nieuw-Nederlandsche Bouwkunst. Amsterdam 1926, p. 61: fig. 78

Wohnungswirtschaft (3) 1926, number 11/12: fig. 51

Wohnungswirtschaft (4) 1927, number 1/2: fig. 50

7.b Texts relating to protective designation, copies of property management plans or documented management systems and extracts of other plans relevant to the property

The below mentioned documents constitute excerpts from existing documentations (investigations into the existing monuments, restoration concepts, action plans) concerning the Siedlung Schillerpark some of which are expert opinions consisting of several volumes. The chosen documents are to stand as examples for the composition and depth of the documentation which exist similarly also for the other nominated housing estates.

Fig. 120–123
Excerpts from the investigations into the existing monument: Siedlung am Schillerpark. Dokumentation und Rekonstruktion des Originalzustandes der Siedlung. produced by Architekturwerkstatt Helge Pitz-Winfried Brenne mit Franz Jaschke. 2 volumes. Berlin 1990

Fig. 124–125

Fig. 126
SIEDLUNG AM SCHILLERPARK  BERLIN-WEDDING

INSTANDSETZUNGSKONZEPT
BAUABSCHNITTE I, II, III
1. Brüstung
   - Außenseite entspr. 1.1 instandsetzen
   - Innenseite entspr. 3.1 Originalputz überarbeiten
   - ggf. entspr. 3.2 neuen Glattputz herstellen
   - Überkante mit Binderschicht entspr. 1.2 und Blechverwicklung entspr. 7.1 überarbeiten bzw. wieder herstellen

2. Deckenunterseite und -stirnfläche
   - entspr. 2.1 instandsetzen
   - entspr. 4.4 lasierender Anstrich

3. Betonpfeiler entspr. 2.1 instandsetzen
   - entspr. 4.4 lasierenden Anstrich

4. Pfeilerspitzen entspr. 2.3 nach Rekonstruktion neu herstellen (s. Detail)

5. Rückwand und Seitenwände
   - entspr. 3.1 Originalputz überarbeiten
   - ggf. entspr. 3.2 neuen Glattputz herstellen
   - entspr. 4.2 bzw. 4.3 Mineralfarbenanstrich

6. Windschutzelement
   - entspr. 6.2 überarbeiten
   - entspr. 4.5 Anstrich mit Lackfarbe (F3, weiß, RAL 9010)

7. Blumenkastenhalterung
   - entspr. 5.5 überarbeiten
   - entspr. 4.5 Anstrich mit Lackfarbe (F4, schwarz, RAL 9005)
SIEDLUNG SCHILLERPARK
Action plan for the preservation and restoration of the historic garden
7. C. **Form and date of most recent records or inventory of property**

**Gartenstadt Falkenberg**

As an important work by Bruno Taut and an outstanding example of reform housing development in Germany Gartenstadt Falkenberg is subject to ongoing scientific investigation (see figure 7e). The most recent publications dealing with aspects of Gartenstadt Falkenberg are:


Investigations into the original colouring and stock takings for establishing the original state of the buildings were carried out in connection with the thorough refurbishment and restoration works. An analysis of the original colouring was carried out for the first refurbishment works and renewal of the façades’ paint coating in the late 1960s.


In 1991–95 were carried out thorough investigations into the original state together with studies of the colouring for restoration purposes. The corresponding documentation includes a description of the building history with a documentation on archive material and literature, drawings of the existing buildings with a register of the damages, the definition of original building elements with studies of the state for restoration purposes as well as proposals for restoration and conservation measures. The department for conservation of historic gardens of Landesdenkmalamt of Berlin ordered the production of a refurbishment concept for the future reconstruction of the outdoor facilities and gardens. The entire set consists of the following papers and documentations:


WORLD HERITAGE NOMINATION • HOUSING ESTATES IN THE BERLIN MODERN STYLE

Siedlung Schillerpark

In connection with the recent scientific studies on Bruno Taut and his works also the Siedlung Schillerpark had been treated in several publications. Other publications have been produced on the topic of "cooperative housing development" which also cover the history of this housing estate and of "Berliner Spar- und Bauverein" (now "Berliner Bau- und Wohnungs-Genossenschaft von 1892"). These publications are:


In the late 1980s was carried out a thorough analysis of the existing monuments and of the preserved building elements for restoration purposes. These investigations also included static studies on the strength and load-bearing capacity of the reinforced concrete pillars of the loggias and balconies. The activities included studies of archive material and literature, the production of drawings of the existing structures and the definition of original building elements with analyses of the existing state for restoration purposes. The results of these investigations were used as basis for the subsequent refurbishment and restoration which is now almost complete. The entire set consists of the following expert opinions and documentations:


In 2003 a plan for preserving the monument’s outdoor facilities of the 1920s and 1950s was established by order of the building cooperative. Since 2004 has been in existence also a development concept for the restoration and preservation of the garden architecture:
Since it has been erected the Großsiedlung Britz journalists and scientists have focused their interest on it (see figure 7e). In 1984 Annemarie Jaeggi provided a detailed description of its history in the exhibition catalogue edited by Norbert Huse: Siedlungen der zwanziger Jahre – heute. Vier Berliner Großsiedlungen 1924–1984. In connection with the recent studies on Bruno Taut and his works also the housing estate at Britz has been treated in several publications. Publications on the history of the housing estate and of GEHAG have also been issued in connection with research into trade-union and cooperative housing development. These publications are:


An analysis for restoration purposes was carried out in the 1980s. In connection with this analysis were produced drawings of the existing structures and investigations into the structures for restoration purposes. The results of the investigations were used as basis for refurbishment and restoration of the houses of this housing estate which began simultaneously with the investigations and continues to date. The results are contained in the following expert opinion.


The following investigations were carried out by order of the state monument preservation office (Landesdenkmalamt), department for preservation of historic gardens, for the purpose of assessing the value as monuments of the housing estate's gardens and outdoor facilities:

- Katrin Lesser, Untersuchung der denkmalgeschützten Freiflächen und Konzeption für den zukünftigen Umgang. 3 volumes. Berlin 2003

In 2001 the following expert opinion was produced by order of the district office of Neukölln for the first two development phases of the horseshoe:


The purpose of the above mentioned investigations was to record the state of the houses by means of photographs and verbal descriptions, to register alterations and to establish an action list for responding to the pressure for change which results from the privatisation of the row houses.
Wohnstadt Carl Legien

Wohnstadt Carl Legien has been described comprehensively in the inventory volume of the architectural and artistic monuments of the GDR (Inventarband der Bau- und Kunstdenkmale der DDR, Hauptstadt I, Berlin 1984) on pages 412–413. In connection with the recent scientific studies on Bruno Taut and his works also Wohnstadt Carl Legien had been treated in several publications. These publications and papers are:


In 1990 Viola Beil presented in her graduation paper at Technische Universität (Technical University) Dresden a first analysis of the state of the buildings from the point of view of monument preservation.


In the early 1990s began stocktaking activities from the point of view of monument preservation and investigations for restoration purposes of the façades and the colouring of the staircases but they were limited to those parts of the block at Trachtenbrodtstraße 2–18 and Sodtkestraße 20–36. The results provided the basis for the subsequent proper restoration of this small part of the Wohnstadt. The following papers resulted from the investigations:


The subsequent proper restoration of the Wohnstadt Carl Legien was completed in 2005 and resulted in the production of another expert opinion preparing further restorations:


In 2001 the department for the preservation of historic gardens of the Berlin state monument office ordered the production of an expert opinion which was to be used as basis for the gradual restoration of the outdoor facilities:

Weiße Stadt
Since the re-discovery of the architectural and urban development qualities of the Berlin housing estates from the period of the Weimar Republic the large housing estate “Weiße Stadt” has also been moved into the focus of scientists and urban preservationists. The publications to be mentioned in this respect are:

- Klaus-Peter Kloß, Siedlungen der 20er Jahre. Berlin 1982, p. 56–68


- Jürgen Tomisch, Rainer Schomann, Denkmaltopographie Bundesrepublik Deutschland, Baudenkmale in Berlin, Bezirk Reinickendorf, Ortsteil Reinickendorf, edited by the Minister for urban development and environmental protection. Berlin without year (1988), p. 68–70, 94, 168–171

An analysis for restoration purposes was carried out in the late 1970s. The activities included studies of archive material and literature, a description of the building and planning history, the production of drawings of the existing structures and the definition of original building elements with analyses of the existing state for restoration purposes. The results of these investigations were used as basis for the subsequent and still ongoing refurbishment and restoration of the houses of the housing estate. The results have been laid down in the following documentation which was produced by order of the Berlin Landesdenkmalamt (state monument preservation office) and GSW (owner of the housing estate):

- Architekturwerkstatt Pitz-Brenne, Uli Böhme, Jürgen Tomisch, Weiße Stadt Berlin Reinickendorf, Dokumentation der 50jährigen Geschichte, Erarbeitung des Originalzustandes sowie der Grundlagen für zukünftige denkmalpflegerische Maßnahmen. expert opinion in 6 volumes ordered by GSW. Berlin 1981


Simultaneously with the restoration of the buildings were carried out a number of investigations into the historic garden areas and concepts for these outdoor facilities were drafted. These are:


In 2000 two restoration concepts were produced by order of GSW. They covered the ribbon building by Wilhelm Bünning at Aroser Allee and the long margin building by Otto Rudolf Salvisberg at Aroser Allee:
Großsiedlung Siemensstadt
The Großsiedlung Siemensstadt has been described in detail in the inventory volumes “Die Bauwerke und Kunstdenkmäler” for the districts of Charlottenburg, 1961, pages 458–460 and Spandau 1971, pages 303–305. In the late 1970s researchers and urban preservationists re-discovered the architectural and urban development qualities of the Berlin housing estates from the period of the Weimer Republic. The publications to be mentioned in this respect are:


• Norbert Huse (Editor), Siedlungen der zwanziger Jahre – heute. Vier Berliner Großsiedlungen 1924–1984. Berlin 1984, and in this:


In the early 1980s was carried out a stocktaking from the point of view of restoration. The activities included studies of archive material and literature, a description of the building and planning history, the production of drawings of the existing structures, investigations into the constructonal state and structural stability of the buildings designed by Häring and the definition of original building elements with analyses of the existing state for restoration purposes in all parts of the housing estate.

The results of these investigations were used as basis for the subsequent refurbishment and restoration of individual parts of the housing estate (development phases by Hans Scharoun and Hugo Häring) and they will also be used for future restoration works. After the end of the restorations their results were recorded in corresponding documentations. These are the following documentations which were produced by order of the departments for urban preservation and for historic gardens of the Berlin Landesdenkmalamt and GSW (owner of the housing estate):


7. D Address where inventory, records and archives are held

Monument preservation authorities
Special purpose authority for monument preservation (Landesdenkmalamt – state monument preservation office)

This authority keeps documents on all of the nominated housing estates in its archives (expert opinions, documentations, investigations into the existing state of the buildings, preservation schemes, image archives, files, etc.).

Landesdenkmalamt Berlin
Klosterstraße 47
10179 Berlin

Untere Denkmalschutzbehörden (Lower monument preservation authorities)
These authorities keep in their archives the documents for those monuments which are located in their territories.

Großsiedlung Siemensstadt (Ringsiedlung): Bezirksamt Charlottenburg-Wilmersdorf von Berlin Fehrbelliner Platz 4 10707 Berlin

Großsiedlung Siemensstadt (Ringsiedlung): Bezirksamt Spandau von Berlin Carl-Schurz-Str. 2–6 13597 Berlin

Großsiedlung Britz (Hufeisensiedlung): Bezirksamt Neukölln von Berlin Karl-Marx-Straße 83 12040 Berlin

Wohnstadt Carl Legien: Bezirksamt Pankow (Prenzlauer Berg) von Berlin Storkower Straße 139 c 10407 Berlin

Siedlung Schillerpark: Bezirksamt Mitte (Wedding) von Berlin Iranische Straße 3 13347 Berlin

Gartenstadt Falkenberg: Bezirksamt Treptow-Köpenick von Berlin Alt-Köpenick 21 12414 Berlin

Weiße Stadt: Bezirksamt Reinickendorf von Berlin Eichborndamm 215–239 13437 Berlin

Owners
They usually keep copies or originals of the ordered expert opinions and investigation results as well as documents referring to the maintenance of the buildings. GEHAG, GSW and Berliner Bau- und Wohnungsgenossenschaft von 1892 also keep images and other material in their archives.

Großsiedlung Siemensstadt and Weiße Stadt: G S W Gemeinnützige Siedlungs- und Wohnungsbaugeellschaft Berlin mbH Kochstraße 22 10969 Berlin

Großsiedlung Britz (Hufeisensiedlung): GEHAG GmbH Mecklenburgische Str. 57 14197 Berlin

Wohnstadt Carl Legien: BauBeCon Immobilien GmbH Schützenallee 3 30519 Hannover

7. E Bibliography

Architecture of the 20th century – general presentations
Banham, Reyner, Theory and design in the first machine age. London 1960
Casteels, Maurice, Die Sachlichkeit in der modernen Kunst. Leipzig 1930
Curtis, William J.R., Modern architecture since 1900. London 1982

De Fusco, Renato, Storia dell’architettura contemporanea. Bari 1974


Giedion, Sigfried, Space, time and architecture. Cambridge, Mass. 1962

Giedion, Sigfried, Befreites Wohnen. Zürich, Leipzig 1929

Gropius, Walter, Internationale Architektur (Bauhausbücher 1). München 1925

Hatje, Gerd (editor), Knaurs Lexikon der modernen Architektur. München 1963

Hilbersheimer, Ludwig, Internationale Neue Baukunst. Stuttgart 1927


Joedicke, Jürgen, Geschichte der modernen Architektur. Stuttgart 1958

Joedicke, Jürgen, Moderne Architektur. Stuttgart 1969


Magnago Lampugnani, Vittorio (Hg.), Hatje Lexikon der modernen Architektur, Stuttgart 1983

Mendelsohn, Erich, Russland – Europa – Amerika. Berlin 1928

Pevsner, Nikolaus, Pioneers of modern design. Harmondsworth 19603

Pevsner, Nikolaus, The sources of modern architecture and design. London 1968

Sartoris, Alberto, Gli elementi dell'architettura funzionale. Milan 1932

Sharp, Dennis, Sources of modern architecture. A bibliography. London 1967

Sharp, Dennis, Modern architecture an expressionism. London 1966

Taut, Bruno, Die neue Baukunst in Europa und Amerika. Stuttgart 1929


Zevi, Bruno, Storia dell'architettura moderna. Turin 1955

**Modern Age architecture in Germany and Berlin**

Adler, Leo, Neuzeitliche Miethäuser und Siedlungen. Berlin 1931


Behne, Adolf, Neues Wohnen – Neues Bauen. Leipzig 1927

Behne, Adolf, Der moderne Zweckbau, München 1926

Behne, Adolf, Die Wiederkehr der Kunst. Leipzig 1919

Behrendt, Walter Curt, Der Sieg des neuen Baustils. Stuttgart 1927

Berning, Maria, Berliner Wohnquartiere. Ein Führer durch 60 Siedlungen in Ost und West. Berlin 1994

Block, Fritz, Probleme des Bauens. Potsdam 1928


Burckhardt, Lucius (editor), Der Werkbund in Deutschland, Österreich und der Schweiz. Form ohne Ornament. Stuttgart 1978

Campbell, Joan, The German Werkbund. The politics of reform in the applied arts. Princeton 1978

Conrads, Ulrich, Sperlich, Hans G., Phantastische Architektur. Stuttgart 19832


Freiheit, Gleichheit, Brüderlichkeit, exhibition catalogue 43. Ruhrfestspiele Recklinghausen. Recklinghausen 1989

de Fries, Heinrich, Junge Baukunst in Deutschland. Berlin 1926


Gut, Albert, Der Wohnungsbau in Deutschland nach dem Weltkriege. München 1928

Hajos, Maria Elisabeth, Zahn, Leopold, Berliner Architektur der Nachkriegszeit. Berlin 1928


Hegemann, Werner, Das steinerne Berlin. Berlin 1930


Herzberg, Ursula, Geschichte der Berliner Wohnungswirtschaft. Unter besonderer Berücksichtigung der gemeinnützigen (Klein-)Wohnungswirtschaft. Hamburg 1957

Hilbersheimer, Ludwig, Berliner Architektur der 20er Jahre. Mainz 1967

Huse, Norbert, "Neues Bauen" 1918 bis 1933 – Moderne Architektur in der Weimarer Republik. München 1975


Johannes, Heinz, Neues Bauen in Berlin. Berlin 1931

Junghanss, Kurt, Der Deutsche Werkbund. Sein erstes Jahrzehnt. Berlin 1982


Kloß, Klaus-Peter, Siedlungen der 20er Jahre, (= Berliner Sehenswürdigkeiten Heft 4). Berlin 1982

Konservierung der Moderne? Icomos Heft e des deutschen Nationalkomitees XXIV. München 1998

Las cuatro colonias Berlinesas en la republica de Weimar, exhibition catalogue. Madrid 1992

Magnago Lampugnani, Vittorio / Schneider, Romana, Moderne Architektur in Deutschland 1900–1950: Reform und Tradition (vol. 1). Frankfurt/Main 1992; Expressionismus und Neue Sachlichkeit (vol. 2). Frankfurt/Main 1994

Massenwohnungsbau und Denkmalpflege (Arbeitsbe- reiche des Landesamtes für Denkmalpflege Sachsen- Anhalt 2), Berlin 1997

Miller Lane, Barbara, Architecture and politics in Germany 1918–1945. Cambridge (Mass.) 1968


Pehnt, Wolfgang, Deutsche Architektur seit 1900. München 2005

Pehnt, Wolfgang, Die Architektur des Expressionismus. Ostfildern-Ruit 19983

Pehnt, Wolfgang, Deutsche Architektur seit 1900. München 2005

Pehnt, Wolfgang, Die Architektur des Expressionismus. Ostfildern-Ruit 19983

Platz, Gustav Adolf, Die Baukunst der neuesten Zeit. Berlin 1927

Posener, Julius, Anfänge des Funktionalismus. Berlin, Frankfurt 1964

Posener, Julius, Berlin auf dem Wege zu einer neuen Architektur - Das Zeitalter Wilhelms II.. München 1979


Rasch, Heinz und Bodo, Wie bauen ? Stuttgart 1927


Schallenger, Jakob, Kraffert, Hans, Berliner Wohnungs- bauten aus öffentlichen Mitteln. Berlin 1926

Schallenger, Jakob, Gutkind, Erwin, Berliner Wohnungs- bauten der letzten Jahre. Berlin 1931


Schmidt, Friedrich, Ebel, Martin, Wohnungsbau der Nachkriegszeit in Deutschland. Berlin 1927


Ungers, Oswald Matthias, Kultermann, Udo (editor), Die gläserne Kette. Visionäre Architekturen aus dem Kreis um Bruno Taut 1919-1920. Leverkusen, Berlin 1963


Wohnen und Bauen – Housing and Building – Habitation et Construction. congress publication. Berlin 1931


Wolf, Paul, Wohnung und Siedlung. Berlin 1926

Zukowsky, John (editor), Architektur in Deutschland 1919 bis 1939. Die Vielfalt der Moderne. München 1994

The individual housing estates

Gartenstadt Falkenberg


Behne, Adolf, Die Wiederkehr der Kunst. Leipzig 1919


Biel, E., Wirtschaftliche und technische Gesichtspunkte zur Gartenstadt-bewegung. Leipzig (without year) approximately 1913, p. 115, 120


Brenne, Winfried, Gartenstadt Falkenberg. Bauhistorische Bestandsaufnahme und Ermittlung des originalen Zustandes der Gebäude als Grundlage für zukünftige Erneu-


Brenne, Winfried, Réhabiliter l’architecture colorée de Bruno Taut. In: L’architecture d’aujourd’hui (71) 2001, number 334, Mai/June, p. 46–51


Die Gartenstadt Falkenberg bei Grünau. In: Zentralblatt für das deutsche Baugewerbe (12) 1913, Nr. 43, p. 373–374


Gartenstadt Falkenberg (advertisement). Edited by Bau- abteilung (building department) of Deutsche Garten- stadtgessellschaft, without year (approx. 1913/14)

Gartenstadtkolonie Falkenberg in Grünau. In: Neukölln- nische Zeitung (41) 1913, No. 243

Gartenstadt-Mitteilungen der deutschen Gartenstadt- gesellschaft (5) 1911, p. 3, 12, 73, 118, 176

Gartenstadt-Mitteilungen der deutschen Gartenstadt- gesellschaft (6) 1912, p. 10, 70, 72, 103 f., 220, 144,

Gartenstadt-Mitteilungen der deutschen Gartenstadt- gesellschaft (7) 1913, p. 37 ff., 55, 70 f., 111 ff., 119, 186

Gartenstadt-Mitteilungen der deutschen Gartenstadt- gesellschaft (8) 1914, p. 41, 64, 132, 206


WORLD HERITAGE NOMINATION • HOUSING ESTATES IN THE BERLIN MODERN STYLE


Kampffmeyer, Hans, Die deutsche Gartenstadtbewegung – zusammenfassende Darstellung über den heutigen Stand der Bewegung. Berlin 1911, p. 61

Lesser, Ludwig, Der Kleingarten, seine zweckmässige Anlage und Bewirtschaftung. Berlin 1915


Mietskaserne oder Gartenstadtshaus? Editor Gemeinnützige Baugenossenschaft Gartenvorstadt Groß-Berlin (advertising brochure) Berlin without year (approx. 1914)

Das Mietskaserne-Elend ... Editor Gemeinnützige Baugenossenschaft Gartenvorstadt Groß-Berlin (advertising brochure) Berlin without year (approx. 1914)

Novy, Klaus, von Neumann-Cosel, Barbara, Zwischen Tradition und Innovation 100 Jahre Berliner Bau- und Wohnungsgenossenschaft von 1892. Berlin 1992


Rahmenplanung für die Gartenstadsiedlung Am Falkenberg, expert opinion by order of Senatsverwaltung für Bau- und Wohnungswesen in cooperation with the district of Treptow, Arge Gartenstadt Falkenberg, Berlin 1991


Staake, Berthold, Die Farben der Gartenstadt, restauratorische Untersuchung anläßlich der Restaurierung der Siedlung in den 1960er Jahren. (Typoscript) Berlin 1966/67


Taut, Bruno, Stellungnahme zum Artikel (statement concerning the article) ”Wohnungsbau in Einheitsformen”
Taut, Bruno, Architektur zum Siedlungswerk. In: Der Baumeister (13) 1915, number 6, p. 252

Taut, Bruno, Gartenstadtsiedlung Falkenberg in Grünau bei Berlin. In: Der Siedler (1) 1918/19, number 7, p. 307 f.


Taut, Bruno, Volksfest-Haus und Siedlung Falkenberg bei Grünau. In: Die Bauwelt (15) 1924, number 11, p. 571

Taut, Bruno, Siedlungsmemoiren. In: Architektur der DDR (24) 1975, number 12, p. 761

Taut, Bruno, Der neue Wohnbau. Leipzig/Berlin 1927


Tessenow, Heinrich, Der Wohnungsbau. München 1909


Siedlung Schillerpark


Bauwelt (18) 1927, p. 38–39 (=number 2, supplement “Der neue Bau”, p. 46–47)


Berliner Wohnungsbauten aus öffentlichen Mitteln. In: Baugewerkszeitung (58) 1926, p. 547–548

75 Jahre Berliner Bau- und Wohnungsgenossenschaft von 1892. Berlin 1967


Die Form (1) 1925/26, image p. 25


Für die neue Baukunst Berlins! In: Wohnungswirtschaft (2) 1925, number 1, p. 3–5

Neue Berliner Siedlungen. In: Deutsche Bauhütte (31) 1927, p. 163


Schallengerber, Jacob, Gutkind, Erwin, Berliner Wohn- bauten der letzten Jahre. Berlin 1931, p. 102

Schmidt, Friedrich, Ebel, Martin, Wohnungsbau der Nachkriegszeit in Deutschland. vol. 1: Berlin-Branden- burg. Berlin 1929, p. 196

Soziale Bauwirtschaft (8) 1928, p. 27


Umbreit, Paul, Warum Wohnstadt Carl Legien? In: Wohnungswirtschaft (7) 1930, number 14/15, p. 271


Behrendt, W. C., Die Form unserer Zeit. In: Gartenkunst (42) 1929, special issue, p. 21–22


Dexel, Grete, Dexel, Walter, Das Wohnhaus von heute, Leipzig 1928, 5. 70–71, fig. 48–51


Gut, Albert, Der Wohnungsbau in Deutschland nach dem Weltkriege. München 1928, p. 539–543 and image XI


Johannes, Heinz, neues bauen in berlin. Berlin 1931, p. 69–73


Lesser, Katrin, Untersuchung der denkmalgeschützten Freiflächen und Konzeption für den zukünftigen Umgang. 3 volumes. Berlin 2003 (Typoscript)


Migge, Leberecht, Groß-Berliner Siedlungsfreiraum. In: Die Wohnung (5) 1930. number 4, p. 97–108

Neue Berliner Siedlungen. In: Deutsche Bauhütte (31) 1927, p. 163


Rotival, Maurice, Les grandes ensembles. In: L’architecture d’aujourd’hui (6) 1935, number (6) p. 68


Taut, Bruno, Neue und alte Form im Bebauungsplan. Wohnungswirtschaft (3) 1926, number 24, p. 198 f.

Taut, Bruno, Der Außenwohnraum. In: Gehag-Nachrichten (2) 1931, number 1/2, p. 9 ff

Taut, Bruno, Die Jugend muß bauen. In: Wohnungswirtschaft (4) 1927, No. 20, p. 163-165

Taut, Bruno, Siedlungsmemoiren, first publication of the article of 1936 in: Architektur der DDR (24) 1975, number 12, p. 761 ff


Wagner, Martin, Großsiedlungen, der Weg zur Rationalisierung des Wohnungsbaues. In: Wohnungswirtschaft (3) 1926, No. 11/14, p. 81–114

1000 Wohnungen – Siedlung in Britz. In: Bauwelt. (18) 1927, number 9, supplement p. 12–14


Wohnstadt Carl Legien

Adler, Leo, Neuzeitliche Miethäuser und Siedlungen. Berlin 1931, p. 159–161


Berliner Groß-Bauten des Jahres 1930. In: Bauwelt (22) 1931, p. 633 (= number 19 supplement p. 11)

Die Berliner Wohnungsbaubäder der letzten Jahre. In: Die Bauzeitung (41) 1931, p. 272

Blunck, Erich, Berliner Bauten aus neuester Zeit. In: Deutsche Bauzeitung (65) 1931, p. 8


Brenne, Winfried, Creating a cosmos of colours – Bruno Taut’s housing estates in Berlin, in: Modern Colour Technology – Ideals and Conservation, edited by do.co.mo.mo international working party (= preservation technology, dossier 5) Leuven 2002, p. 23–24

Brenne, Winfried, Die “farbige Stadt“ und die farbige Siedlung. In: Mineralfarben - Beiträge zur Geschichte

Les cités-jardins de Berlin. In: L'Architecture d'aujourd'hui 1993, number 287, p. 49

Deutsche Bauzeitung (65) 1931, p. 173 (Bauwirtschaft und Baurecht)

Huth, Wohnstadt Carl Legien, Berlin N. In: Deutsche Bauhütte (34) 1930, p. 313–314

Johannes, Heinz, neues bauen in berlin. Berlin 1931, p. 79


Ostdeutsche Bauzeitung (29) 1931, p. 218–219
Schallenberger, Jacob, Gutkind, Erwin, Berliner Wohnbauten der letzten Jahre. Berlin 1931, p. 108–109
Snodgrass, Karin M., A Visionary in Practice. Bruno Taut and his Wohnstadt Carl-Legien. Senior Honours Dissertation, University of St. Andrews, Department or Art History 1995 (Typoscript)
Wedemeyer, Alfred, Die Wohnstadt Carl Legien in Berlin. In: Deutsche Bauzeitung (65) 1931, p. 29–33

Wohnstadt Carl Legien. In: Einfa Nachrichten (1) 1930, number 3


Weiße Stadt
Adler, Leo, Neuzeitliche Miethäuser und Siedlungen. Berlin 1931, p. 172–177

Blunck, Erich, Berliner Bauten aus neuester Zeit im Rahmen einer neuen deutschen Baukunst. In: Deutsche Bauzeitung, 1931, p. 8


Hart, R., Gedanken zur Frage der Großsiedlungsgärten. In: Deutsche Bauhütte 1931, p. 80, 82


Johannes, Heinz, neues bauen in berlin. Berlin 1931, p. 79


Kloß, Klaus-Peter, Siedlungen der 20er Jahre. Berlin 1982, p. 56–68


Lesser, Ludwig, Billige Gärten bei Großsiedlungen. Die Gärten vor den Bauten an der Berliner Schillerpromenade. In: Deutsche Bauzeitung (65), number 5, p. 80–82


Loger, Wilmer, Ringkamp, Christa et al. (= Hortec Garten- und Landschaftsplanung GBR) Gartendenkmal pflegerische Wiederherstellungsplanung, Weisse Stadt Reinickendorf. expert opinion by order of GSW (Typoscript). Berlin 1985


Posener, Julius, Grand Lotissement à Berlin-Reinickendorf. In: L’Architecture d‘aujourd’hui (2) 1931, number 5, p. 38–43

Schallenberger, Jacob, Gutkind, Erwin, Berliner Wohn- bauten der letzten Jahre. Berlin 1931, p. 110–114


Großsiedlung Siemensstadt

Adler, Leo, Neuzeitliche Miethäuser und Siedlungen. Berlin 1931, p. 144–157


Behne, Adolf, Städtebau auf neuen Wegen. Siedlungen Siemensstadt und Reinickendorf in Berlin. In: Berliner Illustrierte Zeitung of 15/06/1930


Blunck, Erich, Berliner Bauten aus neuester Zeit. In: Deutsche Bauzeitung (65) 1931, p. 263–268


Czeminski, F., Berlin: In: Wohnen und Bauen (3) 1931, No. 1/2, p. 6–12, 27–30

Forbat, Fred, Großsiedlung Siemensstadt. In: Bauwelt (22) 1931, number 47, p. 33–38


Groß-Siedlung Siemensstadt. Erbaut durch die Gemeinnützige Baugesellschaft Berlin-Heerstraße mbH. In: Wohnen und Bauen, 1931, number 1/2


Häring, Hugo, Künstlerische Probleme des Städtebaus. In: Deutsche Bauzeitung (65) 1931, number 43/44, p. 253–256


Johannes, Heinz, neues bauen in berlin. Berlin 1931, p. 90–91


Mengerinhausen, Max, Fernheizung, Warmwassererversorgung und Waschanlage der Siedlung Siemensstadt. In: Bauwelt (21) 1930, number 46, p. 1494–1496
Migge, Leberecht, Groß-Berliner Siedlungsfreiraum. In: Die Wohnung (5) 1930. number 4, p. 97–108

Rading, Adolf, Bebauungsplan Siemensstadt. In: Das neue Berlin (1) 1929, number 3, p. 60, 61


Schallenberger, Jacob, Gutkind, Erwin, Berliner Wohnbauten der letzten Jahre. Berlin 1931, p. 114–123, p. 126 Lageplan (location plan)


Slapeta, Lubomir, Slapeta, Cestmir, Siedlung Siemensstadt. In: STAVBA (10) 1931, number 1, p. 2–4

STAVBA (11) 1932, No. 9, p. 144–145, 166–167

Thiele, Klaus-Jakob, 60 Jahre Berlin-Siemensstadt. In: Bauwelt (53) 1962, number 15/16, p. 399–415


8. CONTACT INFORMATION OF RESPONSIBLE AUTHORITIES
8. A Preparer
Ingeborg Junge-Reyer
Senatorin für Stadtentwicklung
Württembergische Straße 6
D-10707 Berlin
Germany
Tel.: +49 30 9012 4710
Mail: ingeborg.junge-reyer@senstadt.verwalt-berlin.de

8 B Official Local Institution / Agency
Senatsverwaltung für Stadtentwicklung
Oberste Denkmalschutzbehörde
Behrenstraße 42
D-10117 Berlin
Mail: od@senstadt.verwalt-berlin.de

Senatsverwaltung für Stadtentwicklung
Landesdenkmalamt
Klosterstraße 47
D-10179 Berlin

8 C Other Local Institutions
Berliner Bau- und Wohnungsgenossenschaft von 1892 e. G.
Knobelsdorffstraße 96
14050 Berlin

Gemeinnützige Heimstätten-Aktiengesellschaft (GEHAG) GmbH
Mecklenburgische Straße 57
14197 Berlin

BauBeCon Immobilien GmbH
Schützenallee 3
30519 Hannover

Gemeinnützige Siedlungs- und Wohnungsbau-
gesellschaft Berlin mbH (GSW)
Kochstraße 22
10969 Berlin

8 D Official Web address
http://www.stadtentwicklung.berlin.de
9. SIGNATURE ON BEHALF OF THE STATE PARTY

Ingeborg Junge-Reyer
Senatorin für Stadtentwicklung
BRUNO AHRENDTS

9.4.1887 born at Berlin
1898–1903 studies of architecture at Technische Universität Berlin
as from 1905 member of Architekten- und Ingenieur-verein (association of architects and engineers) Berlin
1910–1914 architects’ practice together with Heinrich Schweitzer at Berlin
1914–1933 own office at Berlin, many villa and country-house projects
1927 member of Reichsforschungsgesellschaft für Wirtschaftlichkeit im Bau- und Wohnungswesen (RfG) (Research society of the Reich for economics in civil engineering and housing)
1931 collaboration in Deutsche Bauausstellung (German exhibition of architecture), department of rural housing estate development
1936 emigration to Italy
1939 emigration to England
1948 moves to South Africa
24.7.1948 died at Cape Town (South Africa)

important works:
1919–1920 housing estate of small houses at Johannisthal, Berlin-Treptow
1921–1925 double-houses at Kriegerheimstättenstadtung (housing estate homesteads for military personnel) at Lübars (Berlin-Reinickendorf)
1925–1930 residential estate at Archibaldweg, Berlin-Lichtenberg
1929–1931 residential buildings and children’s home at housing estate Weiße Stadt at Berlin-Reinickendorf

important publications:

Reference:

OTTO BARTNING

12.4.1883 born at Karlsruhe
1904–1908 studies of architecture at Berlin and Karlsruhe
1908 member of Deutscher Werkbund, 1919–1923 member of its executive
1918 member of “Arbeitsrat für Kunst” (Working Council for Art)
1924 member of the Berlin association of architects “Zehnerring” (as from 1926 “Der Ring”)
1926–1930 professor and director of Bauhochschule (civil engineering college) at Weimar
1926 co-founder of Reichsforschungsgesellschaft für Wirtschaftlichkeit im Bau- und Wohnwesen (RFG) (Research society of the Reich for economics in civil engineering and housing)
1948–1950 programme for provisional churches made of prefabricated parts
1950–1959 president of the Bund Deutscher Architekten (Federation of German architects) (BDA)
1955 consultant for urban development of the city of Berlin and chairman of the executive committee of “INTERBAU”
20.2.1959 died at Darmstadt

important works:
1921–1924 residential building for family Schuster, Wylerberg, Kleve
1926–1928 large housing estate project at Berlin-Schöneberg for 48,000 flats
1928 steel church at “Pressa” at Cologne
1929–1930 buildings (heating plant and laundry) at margin of large housing estate of Siemensstadt at Berlin-Charlottenburg
1931–1934 Gustav-Adolf church at Berlin-Charlottenburg
1932–1933 research housing estate of the Reich at Haselhorst, Berlin-Spandau, phase of construction with 300 flats

important publications:
Bartning, Otto, Vom neuen Kirchbau. Berlin 1919

Literature:
Bredow, Jürgen / Lerch, Helmut, Materialien zum Werk des Architekten Otto Bartning. Darmstadt 1983
Pollack, Ernst, Der Baumeister Otto Bartning. Bonn 1926
Posener, Julius, Otto Bartning. Berlin 1983
WILHELM BÜNING

4.4.1881 born at Borken / Westphalia
studies of architecture at the Technische Hochschulen (technical colleges) at Munich, Berlin-Charlottenburg and Dresden
1913 member of Deutscher Werkbund
1921 professor at Vereinigte Staatsschulen für freie und angewandte Kunst (united state schools for free and applied arts) Berlin, Technische Hochschule Berlin and Hochschule für Bildende Künste (college for fine arts) Berlin
as from 1930 special research on “daylight in civil engineering”
1950s professor for architectural design, constructive design and hygiene in civil engineering at Hochschule für Bildende Künste Berlin
2.8.1958 died at Berlin

important works:
1926–1927 residential estate at Tile-Brügge-Weg at Berlin-Reinickendorf
1929–1931 ribbon buildings and heating plant at housing estate Weiße Stadt at Berlin-Reinickendorf

important publications:
Büning, Wilhelm, Angemessenes Tageslicht im Wohnungsba. Stuttgart 1953
Büning, Wilhelm, Bauanatomie – Handwerklich technische Grundlagen des Wohnbaues als Einführung in die Baukunst. Berlin 1928 (1947 as revised new edition with the title "Die neue Bauanatomie")

Literature:
FRED FORBAT

31.3.1897 born at Pécs (Hungary)
before 1918 studies of architecture and history of arts at Budapest (Hungary)
1918 student of professor Theodor Fischer at Technische Hochschule Munich
1920–1922 member of Atelier (studio) Gropius at Weimar
1922 participation in the project of Bauhausiedlung (Bauhaus housing estate) Am Horn at Weimar
1925–1928 chief architect of Sommerfeld concern, Berlin
since 1928 own studio at Berlin, member of CIAM
1932 member of group of Ernst May at Moscow
1933 member of group of professor Dörpfeld during his archaeological research at Olympia (Greece)
1933–1938 free architect at Pécs (Hungary)
since 1938 work as architect and urban planner in Sweden
22.5.1972 died at Vällingby (Sweden)

important works:
1929–1930 Großsiedlung Siemensstadt, Berlin-Charlottenburg, blocks 6 and 7
1931 research housing estate of the Reich at Haselhorst, Berlin-Spandau, western phase of construction

Literature:
Architekt Fred Forbat. In: Bauwelt (22) 1931, p. 1475–1486

Fig. 130: Fred Forbat, 1930
WALTER GROPIUS

18.5.1883 born at Berlin
before 1908 studies of architecture at the technical colleges at Munich and Berlin-Charlottenburg
1908–1910 working with Peter Behrens at Berlin
1910–1918 free-lance architect in Berlin, cooperation with the architect Adolf Meyer
1912 member of Deutscher Werkbund
1918 co-founder of the "Arbeitsrat für Kunst"
1919–1925 director of “Staatliches Bauhaus” (State Bauhaus) at Weimar
1925–1928 director of “Bauhaus Dessau Hochschule für Gestaltung”
1924 member of the Berlin association of architects “Zehnerring” (as from 1926 „Der Ring“)
1927 member of “Reichsforschungsgesellschaft” (RfG) (Research society of the Reich for economics in civil engineering and housing)
1930 vice-president of CIAM
1934 emigration to England
1938–1952 head of the department of architecture at Harvard, until 1941 office partnership with Marcel Breuer, former Bauhaus-Master
1942–1952 cooperation with Konrad Wachsmann in producing plywood houses (General Panel Corporation)
1945 founding “The Architects Collaborative” (TAC)
1948–1950 president of CIAM
05.07.1969 died at Boston (USA)

important works:
1911–1914 Faguswerke (shoe last factory Benscheidt), Alfeld a.d. Leine
1925–1926 Bauhaus building and Meisterhäuser (master houses) at Dessau
1926–1928 housing estate at Dessau-Törten
1928 residential buildings of housing estate Dammerstock at Karlsruhe
1929–1930 Großsiedlung Siemensstadt (blocks 4 and 9) at Berlin-Charlottenburg
1935–1957 high-rise residential building for INTERBAU at Hansaviertel (Hansa quarter) at Berlin-Tiergarten
as from 1959 master plan for large housing estate Britz-Buckow-Rudow (Gropiusstadt) at Berlin-Neukölln

important publications:
Gropius, Walter, Dammerstock-Siedlung. Die Gebrauchswohnung. Ausstellungskatalog Karlsruhe 1929
Gropius, Walter, Internationale Architektur. Munich 1925

Literature:
Hugo Häring

22.5.1882 born at Biberach/Riss
1899–1903 student of professor Theodor Fischer at Technische Hochschule Stuttgart
1901–1903 studies at Technische Hochschule Dresden, e.g. with professors Fritz Schumacher and Paul Wallot
1921 moving to Berlin, free-lance architect (until 1943),
member of Novembergruppe (November group)
1924 member of the Berlin association of architects “Zehnerring”
(as from 1926 “Der Ring”)
1926 member of executive of Deutscher Werkbund
1928 participation in founding event for CIAM
1932 participation in exhibition of Werkbund at Vienna
1935–43 teacher and director of “Kunst- und Werkprivatschule für Gestaltung” (private arts and crafts school) at Berlin
1947 appointed member of Forschungsgemeinschaft Bauen und Wohnen (research association construction and housing)
1950 honorary doctor of Technische Hochschule at Stuttgart
1956 arts award of the city of Berlin
17.5.1958 died at Göppingen

important works:
1922–1928 Gut (estate) Garkau near Lübeck
1926–1927 row houses for Waldsiedlung Zehlendorf “Onkel-Toms-Hütte” at Berlin-Zehlendorf
1928–1930 residential buildings at Stockholmer Straße, Berlin-Wedding
1929–1930 ribbon buildings at Großsiedlung Siemensstadt, Berlin-Charlottenburg
1932–1933 research housing estate of the Reich at Haselhorst, Berlin-Spandau, phase of construction with 300 flats

important publications:
Häring, Hugo, Die Ausbildung des Geistes zur Arbeit an der Gestalt. Fragmentente. Berlin 1968
Bartning, Otto, Vom neuen Kirchbau. Über das Geheimnis der Gestalt. Berlin 1957

Literature:
Jones, Peter Blundell, Hugo Häring. The Organic versus the Geometric. Stuttgart 1999

PAUL RUDOLF HENNING

16.8.1886 born at Berlin
1903–1907 studies of architecture and sculpture at Technische Hochschule Berlin
1905 studies at the Academy of Arts at Dresden (professors Wilhelm Kreis) and at Technische Hochschule Dresden (professor Fritz Schumacher)
1907 opening an own studio at Berlin, beginning work at sculptor and ceramist
1913 member of Deutscher Werkbund
1919 appointed member of „Working Council for Art“
1928 member of Internationaler Verband für Städtebau und Wohnungswesen (International Association for Urban Development and Housing)

after 1945 urban development plans for housing estates in Berlin
11.10.1986 died at Berlin

important works:
- 1921–1923 cooperation with Erich Mendelsohn in designing the building of Verlagshaus (publishing house) Mosse at Berlin-Mitte
- 1930 residential block at Baumschulenweg, Berlin-Treptow
- 1930/31 ribbon buildings (residential) at Großsiedlung Siemensstadt, Berlin-Charlottenburg
- 1930–1931 own residential building with studio at Berlin-Lankwitz
- after 1933 single family houses, several designs for residential blocks at Berlin-Lichtenberg

Literature:
LUDWIG LESSER

3.2.1869 born at Berlin
1884–1885 training as gardener at Palmengarten Frankfurt under August Siebert, director
as from 1902 free-lance garden architect at Berlin, many private gardens in and around Berlin
1908 gardening director of “Berliner Terrain-Centrale” and “Zehlendorf-West Terrain AG”
1913 co-founder of “Deutscher Volksparkbund” (German public park federation)
1914 member of Deutscher Werkbund
1919 appointment to the presidium of Deutsche-Gartenbau-Gesellschaft (German horticultural society), president of the society from 1923 until 1933
1913–1933 teacher at the Berlin university
1939 emigration to Sweden
25.12.1957 died at Vallentuna near Stockholm (Sweden)

important projects:
as from 1909 garden city Frohnau at Berlin-Reinickendorf, colonies of villas at Grunewald and Zehlendorf-West (Berlin-Zehlendorf)
1913–1916 Gartenstadt Falkenberg (Garden town Falkenberg); (architect: Bruno Taut) at Berlin-Treptow
1914–1917 Gartenstadt Staaken (Garden town Staaken); (architect: Paul Schmitthenner) at Berlin-Spandau
1929–1931 residential estate Weiße Stadt (architects: Salvisberg, Büning, Ahrends) at Berlin-Reinickendorf
1932 exhibition “Sonne, Luft und Haus für alle” (sun, air and house for all) on Messegelände (fairgrounds) at Funkturm

important publications:
Lesser, Ludwig, Volksparke Heute und Morgen. Berlin 1927

Lesser, Ludwig, Der Kleingarten. Berlin 1915

Literature:
LEBERECHT MIGGE

20.3.1881 born at Danzig (Gdansk)
1904–1913 employee and later arts director of the horticultural company Ochs at Hamburg
1910 trip to England with consequences for Migge’s concept of gardening culture of the 20th century
1912 member of Deutscher Werkbund
1920 moving to Sonnenhof at Worpswede and founding “Siedlerschule Worpswede”
1923–1929 editor of the journal “Siedlungswirtschaft”
1926–1935 own office in Berlin with contacts with the architects of housing reform (e.g. H. Poelzig, M. Wagner, B. Taut, O. Haesler, E. May)
30.5.1935 died at Flensburg

important projects:
1918–1920 garden design for housing estate Lindenhof (architect: Martin Wagner) at Berlin-Schöneberg
1924 housing estate with small houses “Neu-Jerusalem” (architect: Erwin Gutkind) at Berlin-Spandau
1925 exhibition “Heim und Scholle” with Bruno Taut at Braunschweig with the concept of intensive housing estate management
1925 Großsiedlung Britz at Berlin-Neukölln
1926–1930 housing estate Römerstadt (architect: Ernst May) at Frankfurt/Main
1926–1929 Waldsiedlung Zehlendorf “Onkel-Toms-Hütte” at Berlin-Zehlendorf
1927–1928 housing estate Praunheim (architect: Ernst May) at Frankfurt/Main
1929–1931 Großsiedlung Siemensstadt at Berlin-Spandau

literature:
Baumann, Martin, Freiraumplanung in den Siedlungen der Zwanziger Jahre am Beispiel der Planungen des Gartenarchitekten Leberecht Migge, Halle 2002

important publications:
Migge, Leberecht, Jedermann Selbstversorger. Eine Lösung der Siedlungsfrage durch neuen Gartenbau. Jena 1918

Fig. 135: Leberecht Migge, approximately 1930
OTTO RUDOLF SALVISBERG

19.10.1882 born at Könitz near Bern (Switzerland)
1901-1904 studies at the civil engineering department of Technikum Biel (Switzerland)
1908-1913 work at the architects’ practices of Johann Emil Schaudt and Paul Zimmerreimer at Berlin
1914-1929 free-lance architect at Berlin, many housing estate projects
1922 opening a second office at Bern (together with Otto Brechbühl)
1927 member of Reichsforschungsgesellschaft für Wirtschaftlichkeit im Bau- und Wohnungswesen (RfG) (Research society of the Reich for economics in civil engineering and housing)
1928 member of Deutscher Werkbund
1929 professor for architecture at Eidgenössische Technische Hochschule Zurich (ETH)
1930 in-house architect of pharmaceuticals concern Hoffmann-La Roche
23.12.1940 died at Arosa (Switzerland)

important works:
1916–1919 company housing estate of Mitteldeutsche Reichswerke at Piesteritz near Wittenberg
1919–1929 housing estate Elsengrund at Berlin-Köpenick
1924–1926 residential estate at Botanischer Garten (Berlin-Steglitz)
1926–1928 row houses for Waldsiedlung Zehlendorf “Onkel-Toms-Hütte” at Berlin-Zehlendorf
1927–1928 residential estate at Knobelsdorfstrasse (Berlin-Charlottenburg)
1928–1929 housing estate Mittelheide at margin of the city (Berlin-Köpenick)
1929–1931 residential buildings with bridge house at Aroser Allee in housing estate Weiße Stadt at Berlin-Reinickendorf
1930 residential estate Attilahöhe at Berlin-Tempelhof

Literature:


HANS SCHAROUN

20.9.1895 born at Bremen
1912–1914 studies at the department for architecture at Technische Hochschule Berlin-Charlottenburg
1919 cooperates in “Arbeitsrat für Kunst” (not member)
member of “Gläserne Kette” – an association of architects headed by Bruno Taut, member of Deutscher Werkbund
1925–1932 professor at Staatliche Akademie für Kunst und Kunstgewerbe (State academy for arts and crafts) at Breslau (Wrocław)
1926 member of architects’ association “Der Ring”
1945–1946 head of the department for civil engineering and housing of the government of Greater Berlin
1946–1958 professor at department for architecture at Technische Universität Berlin, chair, institute for urban development
1955–1968 president of the Akademie der Künste (Academy of Arts), Berlin
25.11.1972 died at Berlin

important works:

1927 single family house for Werkbund exhibition “Die Wohnung” at Stuttgart-Weißenhof
1928–1929 apartment houses at Kaiserdamm/Königin-Elisabeth-Strasse (Berlin-Charlottenburg)
1929 hostel at Werkbund exhibition “Wohnung und Werkraum”, Breslau
1929/30 apartment houses at Hohenzollernstrasse / Mansfelder Strasse (Berlin-Wilmersdorf)
1930 Großsiedlung Siemensstadt (blocks 1 and 2) at Berlin-Spandau
1954–1959 group high-rise residential buildings “Romeo und Julia” at Stuttgart-Zuffenhausen
1955 development plan for Hansaviertel (together with Hugo Hoffmann, Segius Ruegenberg, Alfred Schinz) at Berlin-Tiergarten
1955 gallery block of Goebelstrasse 1–9 (Großsiedlung Siemensaadt) at Berlin-Charlottenburg
1960–1963 Philharmonie (building for philharmonic orchestra) at Berlin-Tiergarten
1967–1976 State Library at Berlin-Tiergarten

Literature:

Jones, Peter Blundell, Hans Scharoun. London 1995

BRUNO TAUT

4.5.1880 born at Königsberg (Kaliningrad) / East Prussia

1897–1901 training at “Baugewerkschule” (building crafts school) at Königsberg / East Prussia

1910 member of Deutscher Werkbund

1913 consultant architect: Deutsche Gartenstadt-gesellschaft (German garden city society)

1918 member of Novembergruppe and co-founder of Arbeitsrat für Kunst (Working Council for Art)

1921–1924 urban development councillor at Magdeburg

1924 member of the Berlin association of architects “Zehnerring” (as from 1926 „Der Ring“)

1924–1931 many residential projects for various building societies and cooperatives

1927 member of “Reichsforschungsgesellschaft” für Wirtschaftlichkeit im Bau- und Wohnungswesen (RfG)

1931 member of the Prussian Academy of Arts, Berlin

1933 emigrates to Japan

1936 emigration to Turkey, appointment at Academy of Arts Istanbul, professor at department of architecture

24.12.1938 died at Istanbul-Ortaköy

1926–1931 Waldsiedlung Zehlendorf “Onkel-Toms-Hütte” at Berlin-Zehlendorf

1927 participation in Werkbund exhibition “Die Wohnung” at Stuttgart-Weißenhof

1928–1930 Wohnstadt Carl Legien at Berlin-Prenzlauer Berg

important publications:


Taut, Bruno, Bauen. Der neue Wohnbau. Leipzig 1927

Taut, Bruno, Die neue Wohnung – Die Frau als Schöpferin. Leipzig 1924

Taut, Bruno, Die Auflösung der Städte. Hagen 1920

Taut, Bruno, Die Stadtkrone. Jena 1919

Literature:

Brenne, Winfried (editor), Bruno Taut. Meister des farbigen Bauens. Berlin 2005


Nerdinger, Winfried / Hartmann, Kristiana (editor), Bruno Taut 1880–1938. Stuttgart 2001

Salotti, Gian Domenico (editor.), Bruno Taut la figura e l’opera. Milan 1990


important works:

1913–1916 Gartenstadt Falkenberg, Berlin-Treptow

1921–1930 garden town “Reform” at Magdeburg

1924–1930 Siedlung Schillerpark at Berlin-Wedding

1925–1930 Großsiedlung Britz at Berlin-Neukölln
MARTIN WAGNER

5.11.1885 born at Königsberg (Kaliningrad) / East Prussia
as from 1905 studies of architecture at the technical colleges at Berlin-Charlottenburg
1909–1910 studies of urban development and economics at Dresden
1911–1914 chief architect at Rüstringen near Wilhelms-haven
1914–1918 working in the „Zweckverband Groß-Berlin“ (special purpose association of Greater Berlin)
1918–1920 chief architect of Berlin-Schöneberg
1919 co-founder of „Deutsche Bauhütte“ soziale Baugesellschaft mbH (social housing construction company)
1920–1924 manager of „Verband sozialer Baubetriebe“ (association of social construction companies)
1924–1926 manager of „Deutsche Wohnungsfürsorge AG“ für Beamte, Angestellte und Arbeiter (social housing company for civil servants, white and blue collar employees)
1926–1933 urban development councillor of Greater Berlin
1927 member of Reichsforschungsgesellschaft für Wirtschaftlichkeit im Bau- und Wohnungswesen (RfG)
1933 dismissed from public service
1935 emigration to Turkey, consultant for urban development at Ankara and Istanbul
1938 moves to the USA
1938–1950 teacher at Harvard University (Cambridge, Mass.) (USA)
28.5.1957 died at Cambridge, Mass. (USA)

important works:
1918–1919 Siedlung Lindenhof at Berlin-Schöneberg
1925–1927 Großsiedlung Britz at Berlin-Neukölln
1929–30 Strandbad Wannsee (with Richard Ermisch) at Berlin-Zehlendorf, Strandbad Müggel- sse (with Hennings) at Berlin-Köpenick, Messegelände at Berlin-Charlottenburg

important publications:
Wagner, Martin, Städtebauliche Probleme in amerikanischen Städten und ihre Rückwirkung auf den deutschen Städtebau. Berlin 1929
Wagner, Martin (editor), Das Neue Berlin – Monatshefte für Probleme der Großstadt. Berlin 1929
Wagner, Martin, Gross-Siedlung – Der Weg zur Rationalisierung des Wohnungsbaues. In: Wohnungswirtschaft (3) 1926, issue 11/14, p. 75–114
Wagner, Martin, Neue Wege zum Kleinwohnungsbau. Berlin 1924

Literature:
Scarpa, Ludovica, Martin Wagner und Berlin. Architektur und Städtebau in der Weimarer Republik. Braunschweig 1986
EXPERT’S REVIEW
BERLIN HOUSING ESTATES IN THE MODERN STYLE (1913 – 1932)

Application for the UNESCO-World Heritage List

Expert’s Review

Prof. Ing.arch. Vláděmír Šlapeta, DrSc.
Hon FRIBA, Hon FAIA, BDA Eh.

Dean
Faculty of Architecture
Czech Technical University in Prague

August 2005
In 1871, Berlin became the capital of Bismarck’s newly founded German Empire. In the ensuing years an industrial revolution changed the city dramatically as rapid progress profoundly influenced its face and structure. A network of roads, railways and waterways was created for the rapidly growing industry, interconnecting parts of the city agglomeration, and railway stations, ports, market halls and department stores were built to make the distribution of products easier. These building interventions changed the urban structure beyond recognition and transformed Berlin into a modern large city. As the industrial production grew in volume, vast numbers of immigrants came into the city, seeking work and cheap housing. Residential blocks with numerous backyards were soon filled to their utmost capacity. A grave housing shortage arose, and probably in no other big city in Europe was the situation as critical as in the German metropolis. The population of the city and the industrial agglomeration grew from 900,000 in 1871 to more than 2,700,000 in 1900 and to over 4 million at the beginning of the 1920s. In his well-known book “Das steinerne Berlin”, Werner Hegemann characterized the city as the “largest barracks-to-rent city in the world” (die grösste Mietskasernenstadt der Welt). The situation resulted in a housing shortage and this became even worse during the First World War, which put an end to all construction, and during the great inflation in the early 1920s. The housing shortage was especially serious in the city districts built in the so-called “Gründerzeit” period, where the houses had been designed with many backyards. There, each room had more than 4 occupants, and this was the situation of more than 600,000 residents. More than 70,000 residents lived in basements even as late as 1925.

The experience of the garden city concept of Ebenezer Howard and Raymond Unwin from England, and their German modifications (such as Hellerau, a garden city in Dresden designed by Richard Riemerschmidt and Heinrich Tessenow) or the utopian visionary concepts of concentric urban units, as proposed by Bruno Taut shortly before World War I,
could no longer suffice to solve this critical situation. Similarly, the Werkbund exhibition estates, built between 1927 and 1932 in Stuttgart - Weissenhof, Brno - Wilson Forest, Breslau – Grüneiche, Zürich – Neubühl, Prague – Baba and Vienna – Lainz, could only present “Musterhäuser” (Model Houses), one-family houses and double or triple houses for upper middle class customers or terraced houses (with the exception of tenement houses by Ludwig Mies van der Rohe and Peter Behrens in Stuttgart and collective-houses by Scharoun and Rading in Breslau), and not everyday examples for all social classes. The solution could only be found in large housing developments in green surroundings with modern master plans and rationally formulated floor plans, built according to the principles of new, rational housing organization. This was made possible by the consolidation of the economy after the inflation, beginning in 1924, and by the emergence of a new generation of architects, led by the city building counselor (Stadtbaurat) Martin Wagner and the architect Bruno Taut. These men had not only been influenced by the idea of garden cities but also by “Taylorism” – American organization of rationalized building production – and by innovative ways of financing housing construction under the auspices of the German housing society.

The housing developments built in the time of the Weimar Republic between 1924 and 1932 (until the introduction of Brüning’s emergency measures) – when 135,000 apartments were built – can doubtless be declared one of the supreme achievements of Berlin architecture, and that not because of their architectural qualities only but also because of their value as a great social and economic act.

Here a new strategy of avantgarde living was offered, quite unlike the “Gründerzeit” housing complexes from the end of the 19th and beginning of the 20th century, the time of Martin Wagner’s predecessor, the city building councillor Ludwig Hoffmann, where historical style houses were built on long, narrow plots and where the hygienic conditions of block housing with cramped backyards were far from satisfactory: “light, air, and sun” was the motto for the
new housing projects on the outskirts of the city, surrounded by greenery and provided with convenient public transport connections to the city center and to job opportunities. This strategy was based on the progressive social democratic vision of a new society, shared by many in the Weimar Republic.

Housing developments from the 1920s can also be found in many other German cities, especially in Frankfurt-am-Main, in Karlsruhe, Magdeburg, Gera, Leipzig, Dresden, Celle, Breslau (present-day Wroclaw), and elsewhere. Some of them, however, bear traditionalist features (Breslau), others – in Karlsruhe (Dammerstock – Gropius), Leipzig (Neu Gohlis – Mebes and Emmerich) and Magdeburg (Bruno Taut) are the work of Berlin architects or local architects copying Berlin models (Haesler – Celle, Hans Richter – Dresden-Trachau, Schoder – Gera). The housing estates in Hamburg have a strong regional character with the use of brick surfaces and some original urban gestures, especially in the work of Karl Schneider.

The housing developments in Frankfurt am Main built in the time of Ernst May, city architect between 1925 and 1930, are the only exception. May had worked together with Raymond Unwin in London, and as the director of Schlesische Heimstätte in Breslau (from 1920 to 1925) he had organized the building of more than 15,000 dwellings for immigrants to Upper and Lower Silesia after the plebiscite on the border between Poland and Germany. In Frankfurt-am-Main he used his own earlier experience from England and Silesia, from where he brought several collaborators (H.C.Rudloff, Hans Leistikow) and invited also colleagues from Vienna (Margarete Schütte-Lihotzky, Anton Brenner, Franz Schuster) and from the Netherlands (Mart Stam) and Switzerland (Karl Steiger) to create Das Neue Frankfurt.

Judged by the rational approach in their urban design, their lucid, clear floor plans, their use of colors, their standard of interior and sanitary facilities and their rationalized production, May’s housing developments – “Das Neue Frankfurt” - bear comparison with those in Berlin.
Sadly, the case is different with their present condition which, from the point of view of monument care, would not stand comparison with the Berlin housing complexes.

Last but not least to mention is the size of the housing developments in the other cities, which never reached the big city scale of the Berlin projects, as far as size and impact on the society’s way of life is concerned.

A comparison between the Berlin housing developments and their counterparts in other countries would lead to similar conclusions. The “superblocks” built in Vienna in the 1920s under Mayor Karl Seitz were, by their massiveness and simplicity, still connected to the prewar modern traditionalism and the “Grosstadtarchitektur” idea of the grand seigneur Otto Wagner. With their inner courtyards, semi-open or enclosed, the houses were designed as people’s housing palaces (Volkswohnungspaläste) with stores, clubs and social meeting rooms on street level, thus retaining a strongly urban character, at times even reminiscent of fortifications (Karl-Marx-Hof, Lasalle-Hof). In detail, however, they were still connected to industrial arts and the decorative tradition, the intricacy of which contrasted sharply with the modest facilities of apartments designed without bathrooms. Residential blocks in Amsterdam built during World War I – such as Michel de Klerk’s Eigen Haard – which all postwar Europe looked up to, were designed in the expressionist style of the Amsterdam School, with a relief craft detail of brick-faced walls. Although the style became more moderate in the buildings of other architects of the group (P. Kramer, J. Rueters, H. T. Wijdeveld, M. Kropholler, and others) who participated in the development of Amsterdam-South, designed according to the urban plan of H. P. Berlage, it did not follow the tendency toward rationalized mass production which had been followed in Berlin from the very beginning. Nor did the size of the living area and the hygienic standard (no bathrooms) reach the level that had been aimed at in Berlin. Parallel to Amsterdam, other experimental brick-faced apartment blocks were built in Rotterdam: Spangen (M. Brinkman) and - after Jacobus J. P. Oud was
appointed city architect – Tusschendijken which, unlike their Amsterdam counterparts, suggested a shift toward a more rational architectural form. In the housing developments of Hoek van Holland (1924 – 1927) and De Kiefhoek in Rotterdam (1925 – 1929), J. J. P. Oud harmonized ingenious minimalist concepts of the plan with rational construction and pure architectural forms in the tradition of “De Stijl.” It was these projects that made him one of the leading international architects of the “Neues Bauen” style, later renamed the “International Style” in America. In terms of living area standards, urban scale and sanitary facilities (bathrooms were still lacking), however, these housing complexes cannot be compared to the metropolitan character of the developments in Berlin.

The housing complexes of Berlin, therefore, play a unique role in the development of 20th century housing, even from the international perspective. Their uniqueness is seen in a number of aspects:

*Master Plan*

The master plan is very original in all of the six examples chosen, although the Falkenberg garden city was built in two fragments only between 1913 and 1915. Akazienhof is designed as a private area with a small square; in Gartenstadtweg the development responds sensitively to the sloping terrain. Schillerpark was Bruno Taut’s first opportunity to build semi-open apartment blocks after the great inflation in 1924. The project was inspired by Dutch brick architecture and relied on the new system of housing financing based on the house tax (Hauszinssteuer). Bruno Taut’s Hufeisensiedlung, begun in 1925, represents a remarkable transition phase between the urban forms of the garden city and housing development. As such, it combines the use of row houses and apartment buildings with private and public green areas. The buildings are arranged axially in the central part of the development, the row houses as “Hüsung” and the apartment blocks as “Hufeisen”, creating symbolic urban figures around which the other part of the housing development (consisting mostly of row houses and
Tenement houses) is arranged. The other three housing complexes – Die weisse Stadt (the White City), Siemensstadt and Carl-Legien-Stadt represent three various metropolitan urban approaches. In Carl-Legien-Stadt (1928 – 1930), Bruno Taut designed a rib-like composition of U-shaped apartment blocks along the main axis of Erich Weinert-Strasse. In the direction toward the semi-open courts and toward the main axis the façade is decorated by a system of loggias and balconies which gives the entire space a unified urban character.

The entry to the “Weisse Stadt” (White City) housing development (1929 – 1931) is accentuated by Bruno Ahrends’ symmetrically situated tower apartment buildings and further complemented by a fan-shaped composition of tenement houses by Wilhelm Büning. Otto Rudolf Salvisberg’s gallery-access house arches as a bridge over the main boulevard, Schillerpromenade. The location of the main streets was kept unchanged by the architects, in accordance with the 1913 regulation. Finally, Hans Scharoun as the architect of the master plan of the Siemensstadt housing development (1929 – 1931) did not content himself with a schematic linear development in greenery but designed a funnel-like symbolic urban figure at the entry to the development, consisting of three apartment houses of his own design with an original relief “navy” detail on the balconies, which earned one of the houses the nickname “Panzerkreuzer” (the Cruiser).

In all these cases, the significant metropolitan urban form, the expression created by outstanding architects (Ahrends, Salvisberg, Scharoun, Bruno Taut, Gropius and Häring) surpassed the schematism and banality of a simple linear development.

**Functionality**

In contrast to previous block development with many deep and dark yards, the system of slender apartment houses surrounded by greenery at the outskirts of the city represented a new housing program, characterized by the motto “light, air, and sun.” The functional composition shows not only in the master plan but also in a new concept of the floor plan,
where a central supporting wall makes it possible to distribute the basic functions rationally with respect to the cardinal points. The system of balconies provides a connection of interior and exterior spaces and creates a rhythmic three-dimensional articulation of the front façade, thus signaling the house’s residential function. The size of the apartments and the level of the sanitary facilities (each apartment had its own bathroom) definitely surpassed what had up to that point been common in social housing, and created standards which were later accepted also in other European countries.

*Sensibility of detail*

The Berlin housing developments offer a wide range of original architectural details: cornices, entrances, balconies, windows, doors, porches, quoins, chimneys, etc., made at a relatively small cost but of great durability. They reveal the architects’ individual styles and cover all the nuances of “Neues Bauen” architecture – from the rationalist approach of Walter Gropius to the navy style of Hans Scharoun and the organic approach of Hugo Häring.

*Colors*

All of the Berlin housing developments are characterized by colorfulness: in the Falkenberg garden city Bruno Taut experimented with a whole range of expressionist color combinations from black to blue, green, red, terracotta, yellow and ocher to white; Schillerpark combines fair-faced brickwork and white color; Hufeisensiedlung shows more of Bruno Taut’s very colorful expressionist combinations, and finally the use of colors becomes somewhat more moderate in Carl-Legien-Stadt, where the front façades are designed as large areas of green, blue, yellow or red color with white or beige groups of loggias and attached balconies. Blue, brown and beige window frames bring life to the Weisse Stadt; the colors of Siemensstadt are determined by the combination of white plaster and natural material, i.e., the yellow brick of Lower Lusatia (Niederlausitz). The color concept was an important part of the complex
design of all these housing developments, and it is praiseworthy indeed that the reconstructions in the 1980s and later handled the problem with great care and attention.

Landscape planning

The landscaping design of the six housing developments formed an integral part of their concept and was, with just minor exceptions, prepared by outstanding landscape architects of the period – Ludwig Lesser (Falkenberg and Weisse Stadt), Leberecht Migge (Hufeisensiedlung, Siemensstadt). Falkenberg garden city retains the atmosphere and scale of a rural idyll; the landscape design of Hufeisensiedlung borrows partly from the garden city idea (the tenants’ gardens) and also from large-scale landscape design in the case of the Hufeisen (horseshoe) central park. In Weisse Stadt and Siemensstadt, public green areas were designed generously between the blocks, thus improving the environment quality.

Apart from that, the six housing projects chosen – Falkenberg, Schillerpark, Hufeisensiedlung, Weisse Stadt, Siemensstadt and Carl-Legien-Stadt – are characteristic representatives of all the phases of housing development between 1913 and 1932 – from the garden city (Falkenberg) to residential blocks influenced by the Dutch complexes (Schillerpark) to the transitional stage between the garden city and the housing development form (Hufeisensiedlung) and to big city housing complexes with green areas, in three different variations (Weisse Stadt, Siemensstadt, Carl-Legien-Stadt). They cover the entire Berlin agglomeration from north to south and from east to west, as well as the area of both former East and West Berlin. The architects who participated in these projects were the leading architects of the period: Bruno Taut, Martin Wagner, Otto Rudolf Salvisberg, Walter Gropius, Hans Scharoun, Otto Bartning, Hugo Häring, Fred Forbat, and others.

The Berlin housing developments drew broad international attention already at the time they were built. They were published in major professional journals worldwide, in books on modern architecture and town planning, and they were the focus of attention at the Berlin
Building Exhibition in 1931. With the high level of urban design, living area standards, sanitary and technical facilities (e.g., they were originally equipped mostly with communal laundries) and integration into the landscape, they immediately became models for further social housing construction in other European countries. Czechoslovakia followed at the very beginning of the 1930s with the Green Fox (Zelená liška) in Prague - Pankrác (by F. A. Libra, J. Kan, B. Kozák) and housing estates in Brno and Košice, designed by Josef Polášek. The Scandinavian countries joined later with the Danish housing developments in Klampenborg (Bellavista by Arne Jacobsen) and in Copenhagen (Klokkergarden by Povl Baumann and Knud Hansen), and several blocks by Kay Fisker, and in the Finnish industrial city Sunila at Kotka (Alvar Aalto), and finally in the 1940s with the suburbs of Helsinki (Hilding Ekelund, Yrjö Lindegren) and of Stockholm (Sven Backström and Leif Reinius). The tendency toward a yet closer harmony of landscape and housing then reached its peak in the early 1950s in the building of Tapiola, a satellite town designed by a number of leading Finnish architects (Blomstedt, Revell, Siren and others).

The first half of the 20th century is until now only barely represented in the UNESCO World Heritage List. Rietveld’s Schröder house in Utrecht, the Tugendhat villa in Brno designed by Ludwig Mies van der Rohe and the Bauhaus sites in Weimar and Dessau are more or less unique brilliant examples of exclusively solitary buildings. Only the White City of Tel Aviv, based on an urban plan by Patrick Geddes, is an expression of new urbanism and social movement, connected with the foundation of the state of Israel. However, without knowledge of the Berlin housing estates, the White City of Tel Aviv would not be thinkable: many of the architects, planners and builders who participated in the planning and execution had arrived in Palestine with experience from Berlin.

The city of Le Havre by Auguste Perret has very recently been added to the World Heritage List as an example of reconstruction of a war-destroyed strategic seaport, based on a clear
Cartesian plan and sophisticated French standardisation and pre-fabrication, which opens the era of housing strategies in the second half of the 20th century.

The set of Berlin housing estates is also one of the most important achievements of the International Style (“Neues Bauen”) in the 1920s, and is closely connected to a social vision of a more just society, offering a higher standard of living for all social classes. Therefore, the selected set of Berlin housing developments, which have been an important object of monument care efforts for the last 25 years, deserves to be inscribed in the UNESCO World Heritage List not only as an excellent example of 20th century town planning and architecture but also as an exceptional social act.

Vladimír Šlapeta
Michel de Klerk: Eigen Hard housing estate, Amsterdam, 1913-1920
(Photo V. Slapeta)
II.
Karl Ehn: Karl-Marx-Hof, Vienna Heiligenstadt, 1927-1930
(Österreich.DAM)
III.
Jacques J.P. Oud: Tusschendijken housing estate, Rotterdam, 1920
(B. Taut: Die neue Baukunst)
IV.
Jacobus J.P.Oud: housing estate, Hoek van Holland, 1924
(B.Taut: Die neue Baukunst)
V.
Karl Schneider: housing estate, Hamburg Habichtsplatz, 1927-1928
(Koch, Pock: Karl Schneider)
VI.
Ernst May, collaborator H.C. Rudloff: housing estate,
Frankfurt a. M.-Bruchfeldstrasse, 1927-1928
(B. Taut: Die neue Baukunst)
VII.
F.A.Libra and J.Kan: Green Fox housing estate, Prague-Pankrác, 1930-1931
VIII.
Josef Polášek: Masaryk housing estate, Košice, Slovakia, 1930-1931
IX.
Arne Jacobsen: Bellavista housing estate, Klampenborg, 1930-1936
(Arne Jacobsen 1964)
Povl Baumann and Knud Hansen: Klokkergaard housing estate, Copenhagen, 1938
(Modene Bauformen Vol.1940)
XI.
Alvar Aalto: Sunila industrial city, Kotka, 1936
(Funkis. Helsinki 1970)
XII.
Thilo Schoder: Solbygg housing estate, Kristiansand, Norway, 1946-1949
(Thilo Schoder Tysk arkitekt in Norge 1932-1977)
XIII.
Sven Backström and Leif Reinius: star-house estate, Stockholm-Gröndal, 1946
(Sweden. DAM)
XIV.
Yrjö Lindegren: Serpentine apartment block, Helsinki, 1949-1951
(Finland. DAM)
XV.
Josef Havlíček and František Bartoš: Elbe valley housing estate, Hradec Králové, Czech Republic, 1946–1949
(Photo V. Slapeta)
XVI.
Viljo Revell: apartment house, Tapiola - Espoo 1952
(Viljo Revell. Helsinki 1964)
LIST OF DOCUMENTS

2 bound copies of the world heritage nomination for the category of cultural properties
1 loose-leaf copy of the world heritage nomination for duplication purposes
2 copies of the world heritage nomination on CD-ROM
2 copies of a separate CD-ROM containing complete illustrations and picture credits
2 sets of slides with picture credits
2 copies of the executive summary of the nomination
2 copies of the executive summary of the nomination on CD-ROM

LIST OF ADDITIONAL MATERIALS

Expertises

Groß-Siedlung Siemensstadt Berlin, Planungs- und Baugeschichte, Bd. 1,
Documentation and reconstruction of the original state of buildings, basic evaluation for future renovation and restoration action, by order of the GSW (Gemeinnützige Siedlungs- und Wohnungsbau-Sparkassen Berlin mbH), compiled by Architekturwerkstatt Helge Pitz – Winfried Brenne, Berlin 1990

Groß-Siedlung Siemensstadt Berlin, Bauabschnitt Hugo Haring, Bd. 5/A,
Documentation and reconstruction of the original state of buildings, basic evaluation for future renovation and restoration action, by order of the GSW (Gemeinnützige Siedlungs- und Wohnungsbau-Sparkassen Berlin mbH), compiled by Architekturwerkstatt Helge Pitz – Winfried Brenne, Berlin 1984

Groß-Siedlung Siemensstadt Berlin, Bauabschnitt Hugo Haring, Bd. 5/B,
Documentation and reconstruction of the original state of buildings, basic evaluation for future renovation and restoration action, by order of the GSW (Gemeinnützige Siedlungs- und Wohnungsbau-Sparkassen Berlin mbH), compiled by Architekturwerkstatt Helge Pitz – Winfried Brenne, Berlin 1984

Groß-Siedlung Siemensstadt Berlin, Bauabschnitt Hugo Haring, Bd. Baubetreuung 1984/85,
Documentation of supervision of the renovation and restoration action, by order of the GSW (Gemeinnützige Siedlungs- und Wohnungsbau-Sparkassen Berlin mbH), compiled by Architekturwerkstatt Helge Pitz – Winfried Brenne, Berlin 1986

Parkpflegewerk Siemensstadt: Großsiedlung Siemensstadt ‘Ringsiedlung’ und Siedlung Charlottenburg Nord, Texte, (texts)
Documentation of the preservation action of the outdoor facilities, by order of Landesdenkmalamt Berlin, compiled by Peter Schmidt-Seifert and Stefan Helmich, Berlin 2003

Parkpflegewerk Siemensstadt: Großsiedlung Siemensstadt ‘Ringsiedlung’ und Siedlung Charlottenburg Nord, (drawings)
Documentation of the preservation action of the outdoor facilities, by order of Landesdenkmalamt Berlin, compiled by Peter Schmidt-Seifert and Stefan Helmich, Berlin 2003
World Heritage List 2008 - Nomination
“Housing Estates in the Berlin Modern Style” - Germany

Dear Mr Bandarin,

Today we enclose the written response by the Landesdenkmalamt Berlin (State Monument Office Berlin) to the questions submitted by ICOMOS regarding the application for inscription on the World Heritage List of the “Siedlungen der Berliner Moderne” (Housing Estates in the Berlin Modern Style) of 11th December 2007.

If we may be of any further assistance, please do not hesitate to contact us.

Yours sincerely,

Manfred Kühne

The response of the Landesdenkmalamt Berlin to the questions by ICOMOS (11 December 2007):

1. Clarify the meaning of the term “Berlin Modern Style”. If it designates an architectural trend, what are its main features and what differentiates the “Berlin Modern Style” from other architectural expressions in Germany and beyond.

The German concept “Berliner Moderne” (Berlin Modernism) does not refer to a local architectural or artistic style from the first few decades of the 20th century. The concept is more comprehensive in its scope and includes the political, social, economic and cultural foundations of the movement which reacted against the tradition and historicism of the 19th century. The revolution, the republic, democracy, the abolition of the three-class municipal electoral law, the formation of Greater Berlin, a more efficient municipal infrastructure, the city's rise to become the continent's largest industrial city and a metropolitan cultural centre with a worldwide reputation – all of these are typical elements of the modernisation and significance of Berlin in the “Golden Twenties”. They laid the groundwork and created the setting for a highly ambitious residential estate construction programme which had not previously been conceivable or feasible in the history of large cities in terms of quantity, social reformation goals or the quality of the urban design and the architecture.

“Berliner Moderne” is more than a local building style

The term “Berliner Moderne” was translated as “Berlin Modern Style”, but its implications go beyond the stylistic and aesthetic dimension of the architecture and point to the reform and modernisation efforts which were intended to permeate all areas of every day life and the culture of the big city. The German application is more understandable if we understand the term “Berliner Moderne” as a description of the progressive atmosphere and the successful modernisation initiatives in Berlin in the 1920s which gave rise to the enormous residential estate construction programme and ensured its rapid implementation.
From the First World War period to the seizure of power by the National Socialists, Berlin was the centre of modern culture in Germany, and its attraction extended even outside Europe. In Berlin there were a large number of artists, or we could even call them “art renewers”, who had an international reputation. Literature, the graphic arts, theatre, dance and film went through a high period, and the effects of this period are still felt today. Moreover, during the 1920s there was a stable coalition of Social Democrats and Liberals which enabled modern urban development policies to be implemented. After the economic crisis and inflation, state subsidies were then used from 1924 to carry out the extensive residential building programme and create a new type of social residential construction.

In this favourable climate, the development of a modern architectural approach played a major role. Here, it is again worth quoting the assessment which Reyner Banham made of the artistic scene of the time, and especially the unique importance of Berlin's architectural scene, which was placed at the top of the application:

“As the second artistic capital of Europe, after Paris, Berlin was clearly likely to produce work of interest, but it contained, in addition, a remarkable group of architectural talents. No other centre in the early Twenties could have boasted, as Berlin could, more than a dozen progressive architects of more than average competence, sufficiently resilient in mental constitution to take in their stride a major aesthetic revolution, from Expressionism to Elementarism, and to design in either style with equal vigour and assurance.” (Reyner Banham, Theory and Design in the First Machine Age, London 1960, S. 265)

**Leading German architects of the “Modern Movement” were representatives of the “Berliner Moderne”**

The modern architects in Berlin worked together closely. Even before the First World War, most of them were active in the “German Werkbund” (founded in 1907), which had its centre in Berlin. A new crystallisation point for modern architecture was the architectural association “Der Ring” in Berlin (founded in 1924 / 1926), which explicitly adopted the cause of propagating modern architecture. Here, the sort of well-known architects mentioned by Banham came together. Some of them were already in the Expressionist artists’ association “November Group” (1918), were members of the “Working Council for Art” (1918-21) and wrote for the “Gläserne Kette” (1919-20).

Ludwig Mies van der Rohe and Hugo Häring, who operated a joint office in Berlin, organised the association. The active members in Berlin included Walter Gropius, Martin Wagner, Otto Bartning, Peter Behrens, Erich Mendelsohn, Hans Poelzig, Bruno and Max Taut, Fred Forbat, Hans and Wassili Luckhardt, P. Rudolf Henning, Ludwig Hilberseimer, Adolf Rading and Hans Scharoun. As these names show, the members were the elite of modern German architecture in their time, and their works and writings also attracted attention in neighbouring countries. Because of the tasks which were available here, Berlin remained the leading centre of the Modern Movement, although Gropius set up the Bauhaus initially in Weimar and then in Dessau, Bartning directed the Building Academy in Weimar and Bruno Taut was the municipal director of building in Magdeburg from 1921 to 1924. “The new ideas about building radiated out from Berlin”, writes the architectural historian Wolfgang Pehnt under the headword “Deutschland” in the Hatje dictionary of architecture in the 20th Century.

The Berlin architects of the Modern Movement made significant architectural contributions to the modernisation of Germany’s capital city when building became possible again after the economic crisis and inflation. Their motto was “Berlin is becoming a world-class city”. Mendelsohn and the Taut brothers built trades union headquarters, Poelzig built Germany's
first radio building. A thorough restructuring of urban design aimed to open up the centre of Berlin to motorised transport. The Luckhardt brothers and Anker won the competition for a new design of Alexanderplatz. In the service of the health of the common people, Martin Wagner planned two waterside bathing centres on Wannsee and Müggelsee.

Martin Wagner was also the main initiator and the key driving force of the “Berliner Moderne”, at least in relation to the organisation and implementation of the construction economy and urban development policies. He became the municipal director of building in 1926, and in this capacity he was able to shape the administrative, political, social and construction economy parameters in the capital city, and thus to clear difficulties out of the way for the Modern Movement. And Wagner was also the central figure in modern residential construction, which became the most important contribution of the Modern Movement in Berlin. Even before his time as the municipal building director he gave great support to modern residential estate construction and was involved in founding non-profit residential development companies, which then became the developers which made the construction of large residential estates possible.

**A common approach to architectural design, but not a doctrinaire uniform style**

The residential estate architects in Berlin did not regard their task as primarily a question of form, instead they explored the social, economic, structural and urban development dimensions of the task. For example, they worked on floor plan types in order to minimise the construction costs and thus the rents. The democratic arrangement of identical apartment types in rows with balconies or loggias, with two apartments on each floor, automatically led to serial and rhythmic design of the block-type buildings. It was no accident that Bruno Taut, Walter Gropius, Bruno Ahrends, Otto Rudolf Salvisberg and the municipal director of building Martin Wagner were members of the State Society for Research into Economy in Construction and Housing (RfG), and Otto Bartning was actually one of the founders of this society. Many modern forms were at the same time artistic and rational solutions to economic and functional problems. Ornamentation embellishments and decorative facades were excluded.

The “Berlin residential estate laboratory”, as we could call the cooperation between Berlin's architects for housing estates, did not produce a uniform style or even try to do so, in spite of the shared modern design approach of the architects involved. This can easily be shown by reference to the residential estates they built. Bruno Taut found elementary ground layouts and floor plans for buildings and apartments, and he used colour and new urban development patterns to create independent housing estate types, which are nevertheless widely varied and adapted to each individual location. Hugo Häring and Hans Scharoun are regarded as founders and proponents of organic architecture. Walter Gropius is known for his functionalist and rationalist concepts and for the strict implementation according to scientific principles. The “Six housing estates of the Berliner Moderne” which are submitted in the application for world heritage status also stand for a pluralistic type of Modernism, and they represent the high social ambitions which the participating architects pursued by artistic means and expressed effectively and intelligently.

The exemplary effect of world-famous key buildings of the Modern Movement - such as the Bauhaus building in Dessau by Walter Gropius (World Heritage List 2003), the residential buildings by Le Corbusier (French Tentative List 2006) or Haus Tugendhat in Brünn by Mies
van der Rohe (World Heritage List 2001), to say nothing of the “White City” in Tel Aviv (World Heritage List 2003) – could easily be interpreted as creating the general impression of a “White Modernism”. In the Siemessstadt estate, however, buildings of “White Modernism” and yellow brick buildings, straight elongated blocks and organic, dynamic blocks are placed next to each other, and Taut's residential estates tend more towards the impression of a colourful Modernism.

Another expression of undogmatic Modernism was the very relaxed attitude of some of the housing architects in Berlin to their own modernist convictions and ambitions. They wanted to be modern, but not ruled by modern fashions. A rigorous and schematic complex of parallel blocks arranged strictly in a north-to-south direction, such as Haesler used in Celle and Kassel, was rejected by Taut and Wagner. They did not want to elevate an abstract principle above freedom of scope for design in urban construction and the inclusion of topographical or natural elements.

Taut had a similar opinion about the use of mechanised structural designs, which he himself had long demanded, but in the end he never implemented them without giving consideration to the architect’s knowledge gained from experience. For social reasons, he wanted to avoid the risk of incalculable subsequent cost increases as a result of the use of technological solutions which were not yet perfected. A number of problems which conservators now have with the physical properties and structural designs of architectural monuments dating from the Modern Movement show how right he was. The good condition of the estates designed by Taut with a conventional brick-built structure is also partly due to this caution.

**Berlin housing estates from the “Berliner Moderne” – monuments of subsidised public housing**

The term “Berliner Moderne” denotes the political, social, economic, technological, cultural and artistic transformation which the city experienced in almost all areas of its life after the revolution in 1918 and which found a lasting expression in architecture and urban design. The Berlin architects of the Modern Movement played an outstanding role in this development. Their housing estate buildings bear witness to the high social ambitions of the non-profit clients and developers. The architects impressively succeeded in combining the social and housing policy goals of Berlin's democratically elected city parliament with the highest design standards for housing estate design and floor plan solutions. These residential estates figure among the world's most important testimonies to modern subsidised public housing.

The housing estates of the “Berliner Moderne” also help to correct widespread misconceptions about the heritage of international Modernism and to add new characteristic facets to the historical perception. Representatives of the “Berliner Moderne” did not subscribe to any formal aesthetic principle which made the avant garde an end in itself, instead they placed their architectural resources in the service of democratic and social reform efforts. The “Berliner Moderne” introduces colour into the dominant idea of “White Modernism” and corrects clichés about a soulless and formalised functionalism by adding a many-faceted range of imaginative solutions and architectural features. This huge variety gave rise to an enormous humanitarian potential.
In Berlin there are a good 300 residential estates and larger residential complexes which have been placed under monument conservation orders and which represent the whole range of the competing urban design and architectural concepts of the 1920s and 1930s. In addition there are numerous individual residential buildings, including very well preserved buildings by prominent architects such as Haus Lemke by Mies van der Rohe, Haus Bejach in Steinstücken by Erich Mendelsohn and the buildings Am Rupenhorn by Luckhardt and Anker. The subject of mass residential construction in the big city for the working class and the lower middle classes was selected from the wide range of residential construction developments in Berlin because this subject played a crucial and existential role in Germany’s capital city and largest industrial city in the wake of industrialisation, the exodus from rural areas and the formation of cities after the First World War, and in terms of the number of dwellings and the housing standards, these developments in Berlin were among the highest residential construction achievements in the world.

The city of Berlin, which had almost 4 million residents in 1920, can be regarded as the capital city of housing estate construction. After the legal basis for public subsidies for mass residential construction was laid in the German Reich in 1924, 146,598 dwellings were built with state subsidies in Berlin between 1924 and 1931. A further 15,000 dwellings were either subsidised by the city of Berlin or financed privately. If we make an estimate based on an average occupancy of 3.5 people in each apartment, this means that the housing and estate construction programme created homes for over 560,000 people within a period of eight years. Even today, a city with this population would figure among the fifty largest cities in the European Union, and it would be comparable with cities such as Helsinki, Rotterdam, Lisbon or Copenhagen.

The construction of residential estates by the “Modern Movement”, which began around the time of the First World War and was developed in the 1920s, differs fundamentally from residential estates in traditional or Expressionist “forms”. The architects of the “Modern Movement” no longer looked for individual forms, instead they wanted to solve problems and to find the most practical means to do so. The demand was not for historical or even modernist ornaments or facades, it was a demand that “reality” should be structured, as the Berlin architectural theorist Adolf Behne wrote in his book “Der moderne Zweckbau” (The modern purpose-built building). The modern architect reacted to social and ethical obligations. The compulsion to simplicity and functionality in residential estate construction and the focus on the social task had a very fruitful effect on the architecture which arose in Modernism. In view of the enormous housing shortage, the planners thought in large dimensions, and urban design solutions became very important. This working style of the modern architects can be seen in the great variations in Berlin’s residential estates.

Criteria for the selection of the six residential estates

The large housing estates built by the “Modern Movement” were selected from the large number of housing complexes and residential estates built in the 1920s and 1930s because at that time, Berlin had a large number of world-famous architects who represented this movement. Bruno Taut, Walter Gropius, Hans Scharoun, Ludwig Mies van der Rohe, Hugo Häring and Erich Mendelsohn played a major role in shaping the international
“Modern Movement”. Residential estate construction by these architects was one of Berlin’s major contributions to world architecture. The residential estates that are selected stand for outstanding exemplary changes and improvements in the housing and urban development situation. These residential estates marked the beginning of modern social residential construction.

Another important criterion for the selection of the residential estates representing the “Berliner Moderne” was the extent to which the fabric of the buildings is preserved. In many cases, the valuable buildings created by the “Modern Movement” in Germany and throughout the world have lost much of their original glory. This especially applies to housing estate buildings, which are used intensively for social housing and have to be adapted to the changing residential conditions and life situations. Many of them, including extremely important residential estate buildings, have been destroyed, defaced or heavily neglected. The selected residential estate buildings in Berlin were placed under protection at a comparatively early stage. They have been maintained in accordance with conservation principles for over thirty years. They are in a good state of preservation, and as a historical source they provide information about many aspects of residential estate construction in the “Modern Movement”.

The architect Bruno Taut was especially important for modern mass housing construction. He alone designed residential estates with more than 10,000 dwellings in Berlin. He was a very active organiser of housing reform even before the war. Taut’s large housing estates “are among the most important achievements of our century in the area of mass residential construction”, as Ian Boyd White wrote in the entry on Taut in the Hatje dictionary of architecture in the 20th Century. That is why his most important housing estates are part of this selection.

In Berlin there is a continuity of modern residential construction concepts ranging from the garden city to highly compact big city estates. To show not only the results, but also the historical development, six residential estates were included in the final section which document the important stages of the “Berliner Moderne” in its process of housing and urban design reform, including Bruno Taut’s “paintbox housing estate”, Falkenberg Garden City (1913-16). With the uncompromising simplicity of the buildings and the anarchistic use of the element of colour, Taut laid the foundation for a new modern housing estate architecture. This “at last started the death of the residential architecture of the pre-war period” (Ernst May). In the inner city estate Schillerpark (1923-30), Taut developed an alternative to the big city tenement buildings of the 19th century. He broke up the edges of the blocks and used landscaped areas of greenery as “outdoor living rooms”. At the same time, he improved the standards of the accommodation and introduced the flat roof. The four large housing estates Horseshoe Estate, Carl Legien Estate, Siemensstadt and White City each represent a climax of their own type of modern residential estate, and they are all precisely implemented for their position in the big city. They show the broad versatility of the ideas behind the innovative elements of architecture and urban planning which were introduced to residential construction by the “Modern Movement”. The personal qualities of Bruno Taut and the participation of architects such as Gropius, Scharoun and Bartning avoided the risk that rigid principles would prevail in all projects.

Rejected residential estates and housing complexes in Berlin

The range of residential types that are found in Berlin – estates with small houses, garden cities, big city residential complexes, estates with Expressionist forms, conservative
residential estates of block-type buildings in a solid line along the edge of the street – is no better than the normal standard of residential architecture in Germany. For this reason, residential estates which were not part of the “Berliner Moderne” were excluded from the selection.

Instead of a statistically representative cross-section of all residential estate forms created by the “Berliner Moderne”, it was decided to make a strict selection of high quality estates which have been commended in the specialist literature and can serve as exemplary models to represent the greater whole. Other modern residential complexes with a high quality - e.g. by architects such as Mebes & Emmerich, Erwin Gutkind and Jean Krämer - are generally much smaller and do not offer any solutions which have been imitated or which represent any further development compared with the residential estates which have been selected. The same applies, for example, to a small residential complex by Mies van der Rohe in Berlin-Wedding (1925-27), which was very modest in character and which Mies himself considered to be unimportant within his overall work. Other rationalist residential complexes can be found all over the city, but often they only consist of elongated buildings around the edge of the street block, or they are only composed of smaller units. The architects used the standard repertoire of the “Modern Movement”, sometimes competently and sometimes superficially, depending on their talent.

Bruno Taut built many residential estates in Berlin, and four of them were selected. The selection comprehensively illustrates the range of possibilities used by this exceptional architect. From suburban garden cities to compact inner city estates, they show a temporal and spatial sequence of building types which provides a good overview of the major steps in the development of the “Modern Movement”. Other estates from Taut's work were shortlisted, for example the Waldsiedlung (forest estate) in Zehlendorf at “Onkel-Toms-Hütte”. But the typology and forms are very similar to the Horseshoe Estate, and both estates reflect the same stage in the development of such projects. But the Horseshoe Estate has a special significance as the first large-scale residential estate in Germany. And it is better known internationally. The Zehlendorf estate is also in a much poorer condition. That applies especially to some of the 809 terraced houses which were sold as owner-occupied homes shortly after they were built; no steps were taken to prevent their historical fabric from being spoiled in some streets, and the disfigurement has not been corrected since.

Some residential estates were also built in the initial period after the National Socialism period began in 1933. The block-type buildings in these estates are normally very conservative in style, with hipped roofs and small upright rectangular windows. They are characterised by symmetry, gateways leading into the inner courtyards and sculptural elements that reflect the forms of traditional and indigenous architectural fashions in the Nazi period. And the apartments themselves are very small and often have no bathroom. Housing and residential estate construction in the Third Reich in Berlin had hardly any impact outside the region, and certainly not on an international scale. When they were built, most of the architects of the “Modern Movement” were already in exile. After the Second World War there was a new high period of modern architecture in Berlin under new social and economic conditions, and the same also applied to many other cities all over the world.
3. Extend the comparative analysis to other relevant German and European Housing Ensembles, pointing out similarities and differences. This should include an analysis of the Berlin Housing Estates on later housing developments in Europe and other continents.

The criteria which led to the selection of six exemplary residential estates from the large number of estates in Berlin which offer subsidised public housing were also based on an international comparison:

- The application is focused on big city residential estates and mass housing construction as an instrument of housing reform in industrial regions (as a reaction to the housing shortage caused by industrialisation, urbanisation and speculative building). The First World War and the economic crises led to a dramatic increase in the housing shortage for large parts of the population in Europe.

- The central element of the application is the contribution of the “Modern Movement” to solving the housing question. This movement did not only approach the housing problem in large industrial cities from a design point of view, it developed and implemented integrated overall concepts which included the political, social, economic and technological dimensions of the provision of housing and successfully combined them with innovative urban design and architectural solutions. In just a few years, the “Berliner Moderne” produced an unprecedented volume of residential buildings, and it used elementary means to achieve a widely varied architecture and high housing standards.

- The architectural quality of the estates and the status of the artistic personalities involved played a special role in the nomination. It recognises the pioneering and exemplary role of the internationally famous architects of the 20th century – architects whose achievements in the 1920s in Berlin were unique even in an international comparison. These architects played a groundbreaking role, often under very difficult circumstances, and the results of their work laid important foundations which their successors were able to build on – even on an international scale.

- One of the decisive selection criteria for the application is an excellent state of preservation and a special heritage quality of the proposed residential estates. A high degree of historical authenticity and visual integrity is also a decisive factor in an international comparison.

The “comparative analysis” (3.C) in the application points to developments in residential estate construction in France, England and the Netherlands. Enclosed with the application is an independent expert report by Prof. Vladimír Šlapeta of Prague, which places the Berlin residential estates in a national and international context. The comparative results in this report can be deepened and extended for important individual countries as follows:

**Germany**

We find housing estates dating from the 1920s in many German cities. Most of them are traditional in style. Some large German housing estates in the “Modern Movement” - such as Karlsruhe-Dammerstock (Walter Gropius et al.), Leipzig Neu-Gohlis (Mebes & Emmerich), Magdeburg (Bruno Taut), Celle and Kassel (Otto Haesler), Dresden-Trachau (Hans Richter)
and Gera (Thilo Schoder) - were designed by architects from Berlin or local architects who were influenced by models in Berlin.

The residential estate by Walter Gropius and Otto Haesler in Karlsruhe-Dammerstock is the only avant garde project in the city. After a phase of refurbishment, the exterior appearance of the estate is now spoiled by thermal insulation and modernised surfaces. Many historical details have been lost. Otto Haesler's residential estates in Celle and Kassel are partly lost or have been significantly impaired in their appearance by modernisation and thermal insulation.

About 60% of the residential estates in Hamburg were destroyed during the Second World War. With their brick facades, they have a typical regional character. They are mainly arranged in a traditional layout with a solid line of buildings along the edges of the street blocks, and they never achieved a national or international impact as a model for reform. Incidentally, Hamburg's brick-built architecture from the 1920s, with the “Kontorhausviertel” (office buildings - Chilehaus, Messberghof etc.), is already earmarked for nomination as part of the world's cultural heritage on the German tentative list.

In Frankfurt am Main, housing estates with about 15,000 dwellings were built between 1925 and 1930 under the leadership of Frankfurt's municipal architect Ernst May. If we take into account the rational concept of their urban design, their well-lit and clear floor plans, the use of colour, the general housing standards, the hygienic standards and the rationalised production process, these estates seem to bear comparison with the residential estates in Berlin. Unfortunately, that cannot be said of their present state of preservation. After their “rediscovery” about 20 years ago, the estates were again neglected, or they have been refurbished by residential development companies without maintaining adequate monument conservation standards. Terraced houses for single families are being privatised. The degree of authenticity is no longer comparable with the estates in Berlin.

The German residential estates of the “Modern Movement” outside Berlin mainly failed to reach a comparable volume, they rarely achieved the architectural and urban design quality of the capital city and they certainly did not come close to the wider effect achieved by Berlin's residential estates among specialists such as architects, planners and housing reformers. And in the comparable top quality projects, the estates are now generally in a significantly worse state of preservation than in Berlin.

Significant examples from architectural and urban design exhibitions, such as the remaining buildings created in different countries by the European Werkbund movement (Stuttgart, Brünn/Brno, Breslau/Wroclaw, Vienna, Zürich, Prague etc.), are estates built for exhibitions, so they are not comparable with the planning and implementation of large housing estates under the conditions of subsidised public housing. The Werkbund residential estates, or well-preserved parts of the exhibition areas, would possibly be worthy of a separate initiative for a “transboundary nomination” or “serial nomination” together with other programmatical buildings created by the Werkbund movement. 10 of the 21 buildings in the first Werkbund residential estate in Stuttgart-Weissenhof (1927) were destroyed in the war. The estate is impaired in its authenticity and integrity by additional buildings and massive alterations. The two restored residential buildings by Le Corbusier in the Weissenhof estate are on the French tentative list as German contributions in the nomination of the international works of Le Corbusier for the UNESCO World Heritage List.
Netherlands

Social residential construction in the Netherlands began as early as 1901 when the progressive Residential Construction Act was passed. But mass residential construction only really started in the 1920s.

Stylistically, the estates built by J.J.P. Oud between 1918 and 1929 in Rotterdam and Hoek van Holland come closest to the projects in Berlin. But the numbers of dwellings, the floor space and the hygienic standards (no bathrooms) fell short of the Berlin estates, and the broader urban settings and the provision of a high standard of greenery and open space in Berlin were also not attained. Unfortunately, Oud's residential estates have lost much of their authenticity and integrity: they have either been extensively altered, preserved only in outer appearance but without any substance or even completely lost (“Spangen” demolished or defaced; “Tussendijken” destroyed in the war; “Kiefhoek” demolished and rebuilt to the old model in 1995; “Oud-Mathenesse” demolished, the small block in “Hoek van Holland” preserved and externally reconstructed).

Even before the First World War, the first residential blocks in a large city were built in Amsterdam. On the basis of urban designs (1905-17) by H.P. Berlage, a whole urban district was built in Amsterdam South from 1918 with new residential buildings by architects of the Expressionist “Amsterdam School”. The architects regarded themselves as artists, and to a large extent they only influenced the external design of the buildings, which were mainly built in the conventional block-edge pattern. The brick buildings are sculptural in style and built with competent craftsmanship. They are particularly attractive as a visual element in the city. “Non-profit” residential development companies in particular invested in the artistic design of their estates. Residential estates by De Klerk (Sparndammer Platsoen) and De Klerk and Kramer (De Dageraad) attained world-wide acclaim for their artistic details.

From about 1920, much of the residential construction was again taken over by private contractors, but they contracted the design of the facades for middle class dwellings to architects of the “Amsterdam School”. The housing standards for workers' apartments in Amsterdam fell short of the standards in Berlin. The apartments were smaller and did not have bathrooms. There are only isolated examples in which architects integrated the dwellings into landscaped green space and implemented modern scientific research into the systematic reform of residential building and urban design. And the trend towards rationalised mass production, which played an important role from the outset in Berlin, was missing in Amsterdam.

France

After the First World War in France, social residential construction was carried out by the municipal and regional public authorities (Habitation à bon Marché - HBM). In Paris, for example, rental reform buildings were built in the city. Their architecture cannot be assigned to the “Modern Movement”.

The large residential estates from the same period in France – for example “La Butte Rouge” in Châtenay-Malabry by Sirvin, de Rutté and Bassompierre (1924–28) or the Cité Jardin in Suresnes by Alexandre Maistrasse (1921-29) – initially followed the garden city pattern, then a concept of a greater urban density, in a style which can best be described as Art Deco. The projects by Marcel Lods and Eugène Beaudouin, which could be described at the time as avant garde in their style and their urban design – the Cité du Champ des Oiseaux in Bagneux
(1930–32) and Drancy in the north of Paris (1932–34) – have now either changed so much as to be unrecognisable (Bagneux) or have been greatly reduced in size by demolition (Drancy). The “Mille monuments du XXe siècle en France” which the French monument conservation authorities presented in 1998 only included sporadic examples of Modernist residential estates from the inter-war period, most of the buildings listed were individual houses or urban rental buildings from inter-war modernism.

Le Corbusier developed a strongly coloured architecture for the workers’ houses which he designed as a garden city for the Quartier Moderne Frugès in Pessac from 1924 to 1926. It is reminiscent of the strong colours in Falkenberg Garden City by Bruno Taut, which were extensively published in the specialist press and arose over a decade before Pessac. Le Corbusier’s Unité d’Habitation offered a completely new solution to the problem of mass residential construction. It was not based on the residential estate construction of the 1920s, but on his own urban planning work since the 1922 Ville Contemporaine. This residential concept became very influential for architecture after the Second World War, although only six such projects were built between 1947 and 1968. In the framework of the international application for the inclusion of the urban design and architectural works of of Le Corbusier in the World Heritage List, the Cité Frugès, Pessac and the Unité d’Habitation in Marseille are on the French tentative nomination list.

England

With Ebenezer Howard’s garden city concept, an extremely influential model of a new and healthy 20th century residential culture spread from England and conquered the world. Residential construction policies in the UK remained under the influence of the garden city idea for a long time. After the First World War, a new legal framework allowed local authorities to set up residential construction programmes with state subsidies. In a enormous social effort, large garden cities arose with “council houses”, which were mainly two-storey semi-detached or terraced houses in traditional forms. One example is Becontree Estate on the edge of London, where about 100,000 moved into over 25,000 houses between 1922 and 1934. The “Modern Movement” had very little influence in the UK in general, even in the area of residential construction. English residential culture is closely linked with the individual house. It was only after the Second World War that the models of the “Modern Movement” started to influence the UK because the enormous consumption of land and scenery had to be halted. One of the few examples of subsidised public housing in the inter-war period consists of the multi-storey blocks of flats at St. Andrew’s Garden in Liverpool. These council flats were built in 1935 by John Hughes from the municipal construction office. The semi-circular main five-storey building was allegedly influenced by the Horseshoe Estate in Berlin (English Heritage database).

Austria

Almost 60,000 apartments and about 5,000 small suburban houses were built in Vienna after the First World War by a Social Democratic municipal residential building programme for workers. It aimed to create an urban complex with a high density. The “super blocks” built in the 1920s were still based on the tradition of the Imperial period and the “big city architecture” of the famous architect Otto Wagner. Formal elements taken from castles and fortresses were intentional and served to underline the power of the working classes (Karl-Marx-Hof, Lasalle-Hof). The monumental external appearance of the blocks is in tension with
the very basic residential standards (no bathrooms, up to four apartments per floor, no exterior ventilation for the toilets etc.).

**Russia**

Residential construction in Russia was one of the main tasks which presented itself directly after the October Revolution. Modern trends were apparent in Soviet architecture during the era of new economic policies (1921-1927). Large residential complexes were built in **Moscow** such as Usachevka by A. Meshkov and others (1926-27) and the Dubrovka estate of the same period by M. Motylev and others. The developments consisted of apartment blocks arranged loosely around large courtyards which often contained other blocks. A smaller number of less extensive estates were also built in **St. Petersburg**, e.g. a worker’s estate built on Traktornaya Street in 1925-27 by A. I. Gegello, A. P. Nikolski and G. A. Simonov. This ensemble consists of 18 buildings of three to four storeys arranged around vegetated courtyards. The apartments had two to four rooms for one or families or residential groups. The estate was intended to serve as a model for other buildings in the workers’ districts in Leningrad. Residential estates of a “new type” were also created in **Yekaterinburg** (Sverdlovsk), e.g. the “Chekists Village” of 1929-36, and in many other cities in the Soviet Union.

The apartments themselves, the urban settings and the forms were unable to reach the standards of Berlin's estates for economic reasons. The social achievement was the prime consideration. One groundbreaking development was the contribution of the Soviet avant garde to the development of innovative **collective forms of housing**, which arose in close interaction with residential experiments in central and western Europe. For example, Le Corbusier developed his first ideas about the housing machine or Unité d’Habitation in a dialogue with M. Ginzburg and his commune house Narkomfin in Moscow (1928-30).

In 1930, Ernst May and his group were invited to the Soviet Union. Up to 1933 he designed several masterplans for new industrial towns in Siberia. At about the same time, the “Bauhaus Brigade” under Hannes Meyer started its activities in the Soviet Union and initiated a few isolated projects near the Ural. In 1932 Bruno Taut moved to Moscow. These architects were not able to have a large scale influence because of political changes. Under Stalin Socialist Realism became a state doctrine for urban development and architecture.

**Czech Republic, Slovakia and Poland**

At the start of the 1930s, Czech and Slovakian architects joined the “Modern Movement” with Zelená liška estate in **Prague-Pankrác** (by F. A. Libra, J. Kan, B. Kozák) and residential estates in **Brünn/Brno** and Košice by Josef Polášek.

In 1925 the population of **Warsaw** passed the one million mark. Residential construction cooperatives were formed to combat the enormous housing shortage. In Zoliborz and Rakowiec, residential estates with 1647 dwellings were created by 1939. The residential estates Zoliborz I-IX by Brukalski, Filipkowski and Chmielewski can be said to be part of the “Modern Movement”. But the number of dwellings, the social and architectural standards and the state of preservation are not comparable with the residential estates in Berlin. Residential estate buildings in **Breslau** (Wroclaw) were very traditional in style – apart from the Werkbund estate WUWA 1929 which has already been mentioned.
Scandinavia

Sweden opened itself to the “Modern Movement” with an exhibition in Stockholm designed by Gunnar Asplund in 1930. In the following period the architect Uno Åhrén (1897–1977) developed to become the leading proponent of a socially oriented functionalism. Architects from Germany also provided models for this development. The developments were characterised by a human scale, terraced houses and low apartment buildings in green surroundings. Sven Backström and Leif Reinius in Stockholm can be cited for the 1940s (star houses in Gröndal).

The “Modern Movement” in Denmark started with Arne Jacobsen and his estate in Klampenborg (Bellavista 1931-24 / 68 apartments for affluent residents). Kay Fisker, Povl Baumann and Knud Hansen worked in Copenhagen (e.g. Klokkgarden).

Examples in Finland include the industrial town of Sunila in Kotka (Alvar Aalto 1936-1939 and 1951-1954) and works by Hilding Ekelund and Yrjö Lindegren in suburbs of Helsinki. The trend towards an even greater harmony between the landscape and buildings reached its climax in the early 1950s with the construction of Tapiola, a satellite town planned by a number of leading Finnish architects (Blomstedt, Revell, Siren and others).

To summarise, it can be stated that the Scandinavian contributions from the 1930s to the 1950s arose under the influence of German examples from the Weimar Republic. After 1945, they then exerted an influence on West Germany and West Berlin as model examples of architecture and housing policies.

USA

Before the Second World War, the USA did not have a distinctive housing estate culture. A few garden cities by Clarance Klein (Radburn, New Jersey, 1929 and Sunnyside, Queens, from 1924) followed closely in the tradition of the English model projects. Under Roosevelt the organisation “Public Works Administration” (PWA) was founded, which directly carried out housing construction for the poorer classes. Between 1932 and 1934 it implemented 34 projects, although only one of them propagated progressive architectural ideas: the Carl Mackley Houses in Philadelphia (1932-34) by the architects Oskar Stonorov and Albert Kastner, both had arrived from Europe shortly beforehand.
4. Consider reviewing the proposed buffer zones in Gartenstadt Falkenberg and Weisse Stadt in order to ensure that the nominated properties are properly protected and to include relevant surrounding built and open spaces.

In defining the buffer zones for Falkenberg Garden City and the White City, the suggestions by Ms. Schmuckle-Mollard in the ICOMOS evaluation have been implemented. In consultation with the Senate Urban Development Authority (Senatsverwaltung für Stadtentwicklung/OD) and the Berlin boroughs of Reinickendorf (White City) and Treptow-Köpenick (Falkenberg estate), the recommended extension of both buffer zones has now been carried out.

Please find enclosed the maps with the modified boundaries of the buffer zones (cf. also P. 8/9 and P. 24/25 of the nomination application). This also changes the size of the affected areas and the number of residents living in the buffer zones.

The buffer zone for Falkenberg Garden City now amounts to 31.2 hectares, and the whole protected area is thus increased to 35.6 hectares (cf. P. 30 of the nomination application). 250 persons live in the buffer zone of Falkenberg Garden City, and a total of 480 persons live in the protected area as a whole (cf. P. 117 of the nomination application).

The buffer zone of the White City is now extended to 50.1 hectares, and the total protected area is increased to 64.4 hectares (cf. P. 30). The population in the buffer zone of the White City is now increased to 2,300 persons, and the total population in the protected area is 4,400 persons (cf. P. 117).
5. Weiße Stadt

Area of nominated property / Nominierungsgebiet: 14.3 ha
Surface / Fläche: 50.1 ha
Total / Gesamt: 64.4 ha

Monument / Baudenkmal
Listed Garden / Gartendenkmal
Buffer Zone / Pufferzone

Scale / Maßstab: 1:5,000
Source Plan / Kartengrundlage: Landeskartenwerk K5 - August 2004
5. Weiße Stadt

Area of nominated property / Nominierungsgebiet: 14.3 ha
Surface / Fläche: 50.1 ha
Total / Gesamt: 64.4 ha

Monument / Baudenkmal
Listed Garden / Gartendenkmal

Surface / Fläche: 14.3 ha
Surface / Fläche: 50.1 ha
Total / Gesamt: 64.4 ha
The Culture Sector

H.E. Mr Günter Overfeld
Ambassador, Permanent Delegate
Permanent Delegation of
Germany to UNESCO
UNESCO House

23 September 2008

WHO/74/1088/GER/CD/MR

Subject: Inscription of Berlin Modernism Housing Estates (C 1239)
(Germany), on the World Heritage List

Sir,

I have the pleasure to inform you that the World Heritage Committee, at its
32nd session (Quebec City, 2 – 10 July 2008), examined the nomination of
Berlin Modernism Housing Estates (Germany) and decided to inscribe the
property on the World Heritage List. The decision of the Committee concerning
the inscription is attached below.

I am confident that your government will take the necessary measures for the
proper conservation of this new World Heritage property. The World Heritage
Committee and its Secretariat, the World Heritage Centre, will do everything
possible to collaborate with you in these efforts.

The Operational Guidelines for the Implementation of the World Heritage
Convention (paragraph 168), request the Secretariat to send to each State
Party with a newly inscribed property a map of the area(s) inscribed. Please
examine the attached map and inform us of any discrepancies in the
information by 1 December 2008.

The inscription of the property on the World Heritage List is an excellent
opportunity to draw the attention of visitors to, and remind local residents of,
the World Heritage Convention and the outstanding universal value of the
property. To this effect, you may wish to place a plaque displaying the World
Heritage and the UNESCO emblems at the property. You will find suggestions
on this subject in the Operational Guidelines for the Implementation of the
World Heritage Convention.

In many cases States Parties decide to hold a ceremony to commemorate the
inscription of a property on the World Heritage List. Upon request to the World
Heritage Centre by the State Party, a World Heritage Certificate can be
prepared for such an occasion.

I would be grateful if you could provide me with the name, address, telephone
and fax numbers and e-mail address of the person or institution responsible for
the management of the property so that we may send them World Heritage
publications.
Please find attached the brief descriptions of your site, prepared by ICOMOS and the World Heritage Centre, in both English and French. As these brief descriptions will be used in later publications, as well as on the World Heritage website, we would like to have your full concurrence with their wording. Please examine these descriptions and inform us, by 1 December 2008 at the latest, if there are changes that should be made. If we do not hear from you by this date, we will assume that you are in agreement with the text as prepared.

Furthermore, as you may know, the World Heritage Centre maintains a website at http://whc.unesco.org/, where standard information about each property on the World Heritage List can be found. Since we can only provide a limited amount of information about each property, we try to link our pages to those maintained by your World Heritage property or office, so as to provide the public with the most reliable and up-to-date information. If there is a website for the newly inscribed property, please send us its web address.

The full list of the Decisions adopted by the 32nd session of the World Heritage Committee will be sent to you in due course.

As you know, according to paragraph 172 of the Operational Guidelines for the Implementation of the World Heritage Convention, the World Heritage Committee invites the States Parties to the Convention to inform the Committee, through the World Heritage Centre, of their intention to undertake or to authorize in the area protected under the Convention major restorations or new constructions which may affect the outstanding universal value of the property.

May I take this opportunity to thank you for your co-operation and for your support in the implementation of the World Heritage Convention.

Please accept, Sir, the assurances of my highest consideration.

Francesco Bandarin
Director
World Heritage Centre

cc: National Commission of Germany for UNESCO
ICOMOS
Decision: 32 COM 8B.32

The World Heritage Committee,

1. Having examined Documents WHC-08/32.COM/8B and WHC-08/32.COM/INF.8B1,

2. Inscribes the Berlin Modernism Housing Estates, Germany, on the World Heritage List on the basis of criteria (ii) and (iv);

3. Adopts the following Statement of Outstanding Universal Value:

The set of housing estates in the Berlin Modern Style provides outstanding testimony to the implementation of housing policies during the period 1910 – 1933 and especially during the Weimar Republic, when the city of Berlin was characterized by its political, social, cultural and technical progressiveness. The housing estates reflect, with the highest degree of quality, the combination of urbanism, architecture, garden design and aesthetic research typical of early 20th century modernism, as well as the application of new hygienic and social standards. Some of the most prominent leading architects of German modernism were involved in the design and construction of the properties; they developed innovative urban, building and flat typologies, technical solutions and aesthetic achievements.

Criterion (ii): The six Berlin housing estates provide an outstanding expression of a broad housing reform movement that made a decisive contribution to improving housing and living conditions in Berlin. Their quality of urban, architectural and garden design, as well as the housing standards developed during the period, served as guidelines for social housing constructed since then, both in and outside Germany.

Criterion (iv): The six Berlin housing estates are exceptional examples of new urban and architectural typologies, designed in the search for improved social living conditions. Fresh design solutions and technical and aesthetic innovations were incorporated by the leading modern architects who participated in their design and construction.

The six properties were selected out of the ensemble of housing estates of the period existing in the city, on the basis of their historical, architectural, artistic and social significance and the fact that, due to their location, they suffered little damage during World War II. Even though minor reconstruction and interior changes were carried out in the post war period, restoration works within the framework of the protection law of 1975 and their current state of conservation achieve a high standard of integrity and authenticity.

Adequate protection is ensured by the legislation in place, especially by the Berlin Law on the Preservation of Historic Places and Monuments (1995). The properties, buildings and open spaces, are in a good state of conservation. The management system, including policies, structures and plans, proves to be adequate and includes all concerned stakeholders.

4. Recommends that the State Party:
a) approve and implement the Management Plan included in the nomination dossier, in order to ensure the optimisation of the management system and the common management of the six properties;

b) consider the possibility of including provisions related to possible changes of use and privatisation in the management plan, in order to ensure the proper protection of the nominated properties;

c) consider the possibility of nominating the housing estates constructed in Frankfurt during the Weimar Republic period, in order to complete the German contribution to the development of housing ensembles during the first half of the 20th century.
Surface and coordinates of the property inscribed on the World Heritage List by the 32nd session of the World Heritage Committee (Quebec City, 2008) in accordance with the Operational Guidelines.¹

<table>
<thead>
<tr>
<th>Serial ID No.</th>
<th>Name</th>
<th>Area</th>
<th>Buffer zone</th>
<th>Centre point coordinates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1239-001</td>
<td>Gartenstadt Falkenberg</td>
<td>4.4 ha</td>
<td>31.2 ha</td>
<td>N52 24 39 E13 34 00</td>
</tr>
<tr>
<td>1239-002</td>
<td>Siedlung Schillerpark</td>
<td>4.6 ha</td>
<td>31.9 ha</td>
<td>N52 35 34 E13 20 56</td>
</tr>
<tr>
<td>1239-003</td>
<td>Großsiedlung Britz (Hufeiensiedlung)</td>
<td>3.1 ha</td>
<td>7.3 ha</td>
<td>N52 26 54 E13 27 00</td>
</tr>
<tr>
<td>1239-004</td>
<td>Wohnstadt Carl Legien</td>
<td>8.4 ha</td>
<td>26.5 ha</td>
<td>N52 32 47 E13 26 01</td>
</tr>
<tr>
<td>1239-005</td>
<td>Weißes Stadt</td>
<td>14.3 ha</td>
<td>50.1 ha</td>
<td>N52 34 10 E13 21 03</td>
</tr>
<tr>
<td>1239-006</td>
<td>Großsiedlung Siemensstadt (Ringsiedlung)</td>
<td>19.3 ha</td>
<td>46.7 ha</td>
<td>N52 32 22 E13 16 39</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>88.1 ha</strong></td>
<td><strong>225 ha</strong></td>
<td></td>
</tr>
</tbody>
</table>

¹ Information abstracted from document WHC-07/31.COM/8B presented to the 31st session of the World Heritage Committee (Christchurch, 2007).
Brief Description in English

Berlin Modernism Housing Estates. The property consists of six housing estates that testify to innovative housing policies from 1910 to 1933, especially during the Weimar Republic, when the city of Berlin was particularly progressive socially, politically and culturally. The property is an outstanding example of the building reform movement that contributed to improving housing and living conditions for people with low incomes through novel approaches to town planning, architecture and garden design. The estates also provide exceptional examples of new urban and architectural typologies, featuring fresh design solutions, as well as technical and aesthetic innovations. Bruno Taut, Martin Wagner and Walter Gropius were among the leading architects of these projects which exercised considerable influence on the development of housing around the world.

Brief Description in French

Les Cités du style moderne de Berlin, en Allemagne, comprennent six ensembles de logements qui témoignent de la politique de l'habitat innovante de 1910 à 1933, spécialement durant la République de Weimar, lorsque la ville de Berlin était à l'avant-garde sur le plan social, politique et culturel. Ces cités constituent un exemple exceptionnel de l'évolution des logements sociaux qui a contribué à améliorer l'habitat et les conditions de vie des personnes à faibles revenus, grâce à des approches novatrices en matière d'urbanisme, d'architecture et de conception des jardins. Le site offre des exemples remarquables de nouveaux types urbains et architecturaux avec des solutions inédites en matière de design et des innovations techniques et esthétiques. Bruno Taut, Martin Wagner et Walter Gropius ont été parmi les principaux architectes de ces projets qui ont exercé une influence considérable sur le développement de l'habitat partout dans le monde.
Fig. 9: Siedlung Schillerpark, nominated area and buffer zone, scale 1:5,000.
Fig. 12: Großsiedlung Britz, nominated area and buffer zone, scale 1:5.000

GROSSSIEDLUNG BRITZ (HUFEISENSIEDLUNG)
WOHNSTADT CARL LEGIEN

Prenzlauer Berg

Scale / Maßstab 1: 5.000
Source Plan / Kartengrundlage:
Landeskartenwerk K5 - Oktober 2003

Fig. 15: Wohnstadt Carl Legien, nominated area and buffer zone, scale 1:5.000
5. Weiße Stadt

Area of nominated property / Nominierungsgebiet: 14.3 ha
Listed Garden / Garten denkmal: 50.1 ha
Total / Gesamt: 64.4 ha

Monument / Baudenkmal
Buffer Zone / Pufferzone

Scale / Maßstab: 1:5,000
Source Plan / Kartengrundlage:
Landeskartenswerk K5 - Oktober 2003
Mr Francesco BANDARIN
Director
World Heritage Center
UNESCO
Paris

Subject: “Berlin Modernism Housing Estates”, Germany

File no.: 611.90 Pr 5.12/17
Paris, 4 December 2008

Dear Mr Bandarin,

In response to your letter no. WHC/74/1088/GER/CD/MR dated 23 September 2008, please find attached a letter by the city of Berlin providing you the contact details of the institution responsible for the management of the property.

Yours sincerely,

Ansgar Sittmann
(Third Secretary)
UNESCO Convention for the Protection of the World Cultural and Natural Heritage
UNESCO World Heritage Site Berlin’s Residential Estates of the Modern Age
Letter by the World Heritage Centre of 23 Sept. 2008
Response to questions by the World Heritage Centre

Dear Mr. Bandarin,

I would like to reply to questions put forward in your above letter as follows:

- The cadastral material has been checked and found to be correct. However, in the tabular summary the sum of surface areas relating to buffer areas will have to be correctly stated as 258,5 ha instead of 225 ha.

- Contact data of agency/person in charge of management of the sites are as follows:

  Landesdenkmalamt Berlin, Klosterstraße 47, D 10179 Berlin
  Dr. Klaus von Krosigk
  Tel.: 0049 30 9027 3620
  Fax.: 0049 30 90273700

  Klaus.vonKrosigk@SenStadt.Berlin.de
  landesdenkmalamt@senstadt.berlin.de

Fahrverbindungen:
2 Märkisches Museum
8 Jannowitzbrücke, Heinrich-Heine-Str.
3, 5, 7, 75, 9 Jannowitzbrücke
147, 265 Märkisches Museum

Zahlungen bitte bargeldlos an die Landeshauptkasse Berlin:
Postbank Berlin
Kto.Nr. 58-100
BLZ 100 100 10
Berliner Sparkasse
Kto.Nr. 0 990 007 600
BLZ 100 500 00
Berliner Bank
Kto.Nr. 9-919 260 800
BLZ 100 200 00
Landeszentralbank Berlin
Kto.Nr. 10 001 520
BLZ 100 000 00
The brief description of sites is correct.

The Office for the Preservation of Ancient Monuments along with proprietors’ representatives (Initiative Welterbe) launched websites for Berlin’s residential estates of the modern age. Web addresses are as follows:


The Senate of Berlin wishes to be issued a World Heritage Certificate. The handover of that Certificate as arranged with the Director of World Heritage Centre, Francesco Bandarin, will be in Berliner Rathaus on 7 June 2009.

With kind regards

Susanne Walter