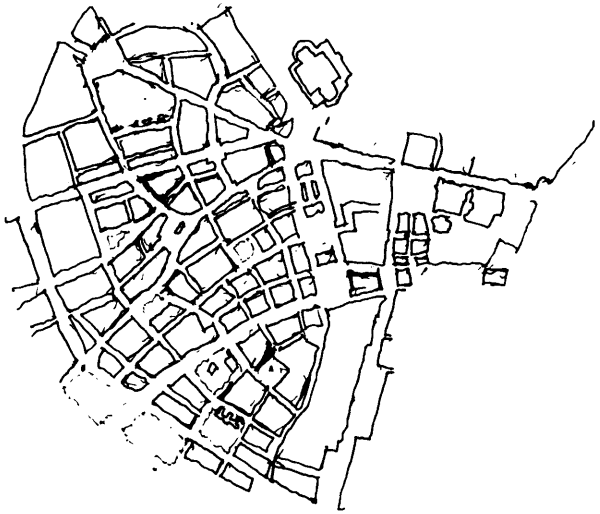

URBAN INFILL HOUSING IN A POST-WWII LANDSCAPE:
Housing in the City of Dresden, Germany

by
Robert Harrison Shoaff
B.S., Architecture (1997)
New York Institute of Technology

Submitted to the Department of Architecture
on May 20, 1999 in Partial Fulfillment of the
Requirements for the Degree of

Master of Science in Architecture Studies
at the
Massachusetts Institute of Technology
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Abstract

The goal of this thesis is to develop an approach to reconfigure a district of former socialist housing with two intentions. The first, to create a stronger urban framework in the form of a master plan that is based on the planning department assumptions and values based on my research and analysis. The second, to design housing prototypes that work with the existing housing to achieve the first intention.

The basis for the design is in the research of the city and its context, both in the past and present. Essentially, the development of the city can be viewed in distinct periods of growth, each having distinct block and building typologies. The most drastic change in growth occurred during the destruction of the city through fire bombing on February 13/14, 1945. History and context were erased and Dresdener's were presented with two paradigms of rebuilding. The first was based on the principles of socialist planning and the second based on the order of the city before the war. The first paradigm was chosen as a new approach to urban design during this time period up until the fall of the Berlin Wall on November 12, 1989. This date signifies the rethinking of past ideals and traditions of the socialist city by the Germans, prompting a change in the physical form of the city in the minds of the urban planners and architects of Dresden. Based on an urban structure plan stating development guidelines, competitions were held to redesign specific areas and a master plan was created. This is the premise of this thesis.

Unfortunately, their intention in the plan was to develop the major spaces and their edges, leaving areas of socialist housing untouched. Through the understanding of past and present conditions, this thesis focuses on the Seevorstadt West sector with a similar stance as the urban planners and architects in Dresden. The goal is to resolve the architecture and urbanism of socialist Dresden through the addition of new building types not to resurrect the "Florence of the Elbe", but shape the city for the future.

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ACKNOWLEDGEMENTS

This thesis would never have been pursued had it not been for the M.I.T. trips to Dresden in June 1998 and January 1999. My experience during those visits left a great impression and challenged me to formulate an urban design thesis based on the city. Many thanks to Stanford Anderson, head of the Department of Architecture, Batuz of the Batuz Foundation, and the professors and students of the Dresden Technical University for their efforts to set the process in motion to allow for such trips to occur.

I would like to thank Michael Dennis for his support and guidance through all the stages of this thesis. He pushed me to see beyond the norm and taught me a new way of looking at the details of design and planning. He helped to bring this thesis into focus and gave me encouragement when things were not so clear. To Professors Ellen Dunham-Jones and David Friedman, I am grateful for their guidance in challenging me to see the project from a myriad of viewpoints. I deeply appreciated their interest and attention that they lent to the project.

I am also indebted to the valuable insight gained from Hilmar A. von Lojewski of the Dresden City Planning Department. He helped the visiting students and professors in getting aquatinted with the past and present situations of the city.

To the students of the Dresden 5 and Urban Design Dresden Workshop and Studio, thanks for the great times and discussions about the city in and out of class.

To my parents, Richard and Nancy Shoaff, I am grateful for their thoughts and prayers. They provided support through this process, and always gave me the freedom to pursue my dreams.

To my wife, Michele who was there during the darkest times when there seemed to be no end. Who was able to take every situation and find the best of it in turn, giving me the encouragement and drive to press on to the end. I dedicate this thesis to you.

And most of all I would like thank God for the blessings and perseverance that he has provided.

CONTENTS

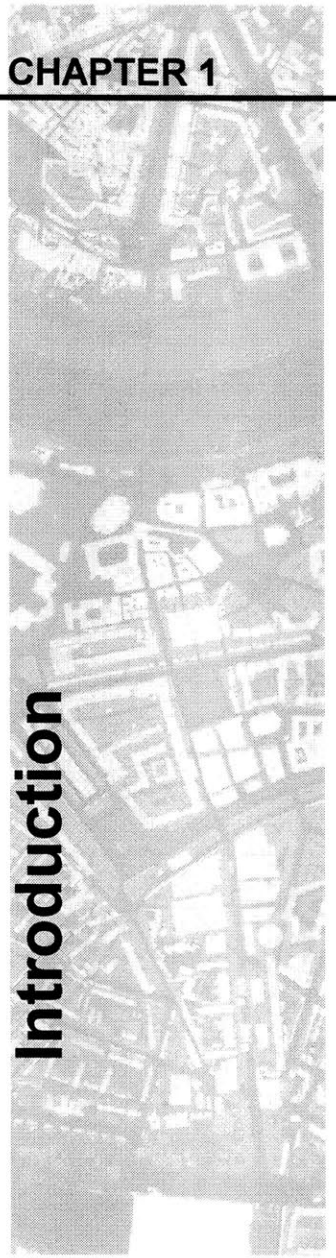
PREFACE

The choice of the city of Dresden as an urban design thesis came to me during my first trip to Europe in the summer of 1998. The city made a deep impression on me and my perception of cities. In my undergraduate thesis at New York Institute of Technology, I studied the relationship between the city of Harrisburg, PA, and a rural suburb ten miles west. The thesis focused on finding a method of planning suburbs in relationship to the city. It could be loosely referred to as a satellite town or Transit Oriented Development (TOD). I studied Le Corbusier's Radiant City, Wright's Broad Acre City, and the ideas of CIAM. The typology of the master plan was six story housing structures that define courtyard spaces.

Little did I know that two years later I would be challenging those assumptions and methods. When walking around Dresden doing site research for the Urban Design Workshop, I was amazed to actually experience a typology similar to the ones I designed in my undergraduate thesis. Formal elements like the long facades, building height, interior courtyards for the residents, and pedestrian passageways through the blocks were concepts that I worked into the design of my housing prototype. With the experience of the formal qualities and my experience in urban design and urban conditions I set out to challenge the existing socialist housing typologies in a way that brings the public and private spaces into focus.

Overall, this thesis has brought about a greater knowledge of the periphery and core of the city. It has also helped me to develope an approach to understanding cities and how to evaluate their form. Working at both the architectural and urban levels I have become attuned to the nuances of each and how one affects the other. The modern and traditional ideologies have existed in Dresden and still seem unresolved. My hope is that through this thesis they are clearly understood and presented in a way that provides a source for the Dresden Planning Department as the city of Dresden enters the next millenium.

CHAPTER 1



Introduction

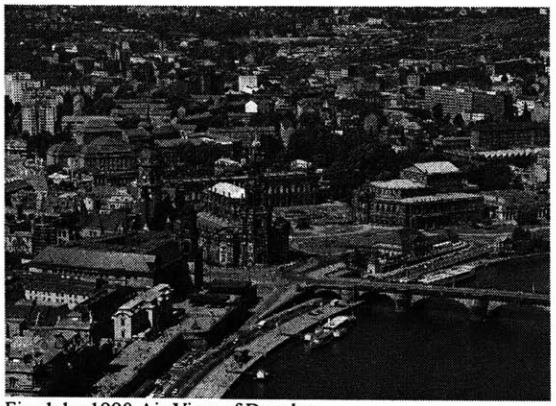


Fig. 1.1 - 1990 Air View of Dresden.

1.1 Objective

In retrospect, the problems of the urban landscape have come full circle in the methods of dealing with the periphery and suburbs of cities. The recent movement to resolve the ever-present conflict between the city and surburbanization of the periphery has left city planners, urban designers, architects, and landscape architects struggling in what appears to be a never-ending battle. At the turn of the century, city planners and architects worked with a similar edge condition as cities were going through a metamorphosis from industrialization. Now, after 100 years, the signs of similar approach persist.

The new urbanist movement in the United States is not the only group working to resolve these tendencies. Architects and planners of Dresden, Germany,[1] a city that resembles American cities because of its suburban quality, strive to densify their city using formal strategies. What were once streets made by 19th century planning principles have changed radically. With the advent of modern planning, buildings were liberated from their duty to define streets. More importantly, there was a shift in the notions about public life on the street and the private realm. In a egalitarian way, the modernist movement increased the size of open space, which only made it more private. A similar process occurred in the United States after World War II from the dispersion of cities by way of the automobile and the enormous need to house returning veterans. It is this similarity, in Dresden, that allows a comparative analysis to understand the thoughts and movements in architecture and urbanism that shaped the city over the past century.

At present, the core of Dresden and its periphery are in dire need of reconfiguration. The low levels of population attribute to the vast undefined and unrelated open spaces found throughout the city. Since the fall

[1] Population of Dresden in 1990 – 493,200 and it has been decreasing. "Dresden", *Microsoft Encarta Encyclopedia 99*.

of the *Deutsche Demokratische Republik* (German Democratic Republic - GDR), in November 1989, a reunification of Eastern and Western Germany has occurred. The new West German planners are seeking answers for methods to increase densities and correct the years of GDR planning. Because of the reunification, Dresden, and other former East German cities, have experienced an enormous growth in an effort to close the gap in population, income, and unemployment that they once had with former West Germany.


Fig. 1.2 - 1930's Figure Ground Plan.

The reunification process, while extremely positive for the future of Germany, has negative side effects to the planning process in the built environment. As money is acquired to fund projects, the process is carried out in haste to get these projects built. The urban planners and architects lose the privilege to envision the city in the future. Dresden did reach that point when the Soviets were in power, but since the reunification city officials in the planning department have regained some control in the planning process. Their approach is still a defensive position, rather than proactive. The process focuses on rebuilding historic buildings in the core and limiting development throughout metropolitan Dresden. An assertive effort has not been made in modifying the places of the present to create a more coherent city, although it is on most of the planning officials' minds.

In order to solve the problems that exist in Dresden today, an effort must be made to understand the theories and motives that shaped the city over the past century. Architecture and the ideologies that appeared around the 1900s left an impression in the process of making a city. The two particular areas, where this is most prevalent, are in the periphery before the Second World War and in the bombed cities after the war. As

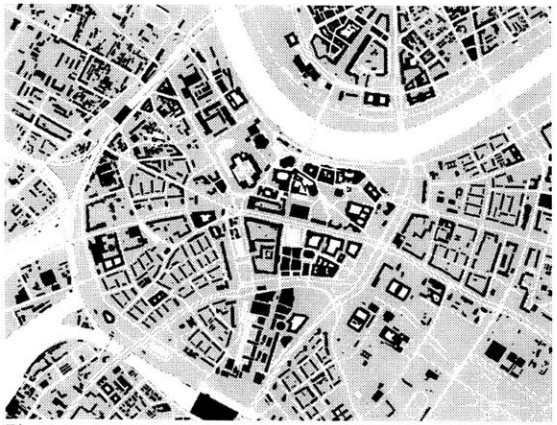


Fig. 1.3 - 1994 Figure Ground Plan.

interior space size increased the definition of it was more reductive in nature, as did the shaping the exterior spaces. Traditional ideologies in this new industrial era attempted to reconcile themselves to produce a new methodology that would not compromise historical context. It was not until the bombing of Dresden that the new architectural practices could be incorporated into the city. With the urban fabric destroyed, the streets, defined only by sidewalks left during the ten-year cleanup process, became the base context for the communist planning strategies. The early socialist housing typologies that appeared around the 1950s were a direct example of the influence of architecture as it transforms a traditional urbanism into new modern planning model that results in the urban form seen in Dresden. These can be considered prototypes that exhibit ways to incorporate the new architectural and urban theories while maintaining contextual relationship to past forms. Unfortunately, urban values associated with these housing structures disappeared as they were replicated throughout the area outside the inner core. Structures on large blocks with a vast continuous open space resulted and exist in the Dresden of the present.

The current situation with Dresden and its housing is that since the fall of the Berlin Wall on November 12, 1989, they have gained a negative connotation, similar to the social housing projects found throughout cities in the United States. In conjunction, the vast open spaces in which the housing structures are situated that were for every have become places for no one.

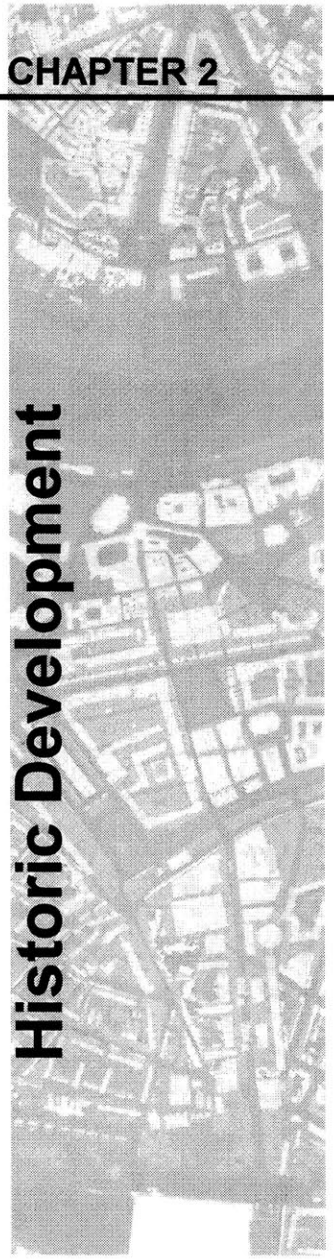
On top of the negative perception of housing, Dresden has been decreasing in population. Thoughts of owning ones own home have lured families out into the suburbs. This is happening during a time when the

city officials and planners would like to revive the city with a more denser block structure[2]. Since March of 1990 the planners have been developing a plan to fill in parts of the city and resurrect ones of historical significance.

The intent in the following chapters is to present a context of redesign in the research and analysis of Dresden, with the result of a master plan, guidelines and building typologies as a way resolve the discontinuity of ideologies. Here in lies the challenge that how does one take a site with such strict planning ideals built into it and convert it into a pleasurable place to live.

2 Hilmar A. von Lojewski's April 6th 1999 M.I.T. lecture Dresden – Planning and Projects for the Redevelopment of a European City.

CHAPTER 2



Historic Development

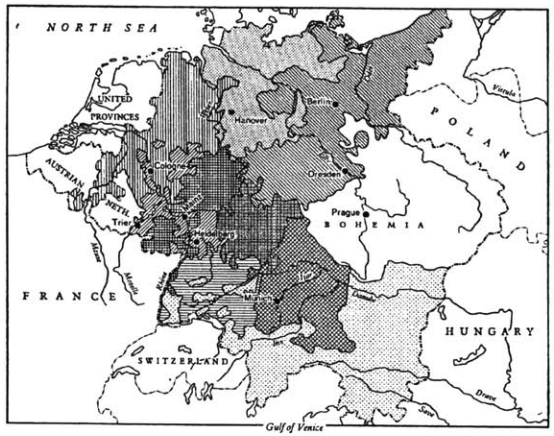


Fig. 2.1 - Political Map of Germany in 1789.

2.1 The Origins of Dresden

In order to understand the Dresden of 1998, one must look at its development through history. The inescapable dilemma is that during the middle of this century, the identity of the city was destroyed and, in an effort to rebuild the pieces, a city emerged.[3] The city, founded around the 13th century, was an intermediary trading point between northern Germany, from the North Sea, and the area that is now known as Poland.[4] The Germany of the 18th century was a feudal agrarian society that consisted of nine *Kriese* (circles) governed by members of the Holy Roman Empire. Dresden was located in the Upper Saxon Circle as seen on the map of 1789 (fig.1).[5] Germany's geographical location played a prominent role in European politics as it developed regionally from the middle ages to the present.

In the 18th century, Dresden was known as "Florence on the Elbe" because of its cultural significance and Baroque nature.[6] Dresden's cultural significance increased about the time that other cities were becoming popular through the Renaissance and Baroque movements in Italy. Artists, such as Canaletto, replicated the main plazas and the people in them on canvas with such a realism that the paintings will forever remain a reference point for this 'Florentine' German city[7]. The painting of Dresden gave the city prestige and elevated it to a level of status as other cities like Munich, Venice, Vienna, and Warsaw (fig. 4-6), which Canaletto also painted.

During that century, the Baroque spaces in Canaletto's paintings were included in their relationship to the larger city. The removal of the fortification wall around the city was the primary reason resulting in the change in methods. Architects like Gottfried Semper, designer of Dresden's Opera House, would be a

[3] This is not to say that Dresden did not reinvent itself in the past through major battles during war times. Past technology did not allow for such mass destruction and loss as what happened on February 13th and 14th, 1945.

[4] A. E. J. Morris. *History of Urban Form Before the Industrial Revolutions*, p. 234.

[5] Agatha Ramm, *Germany 1789-1919: A Political History*, p. 8, p. 12.

[6] A plan that was Baroque in character was done by Wolf Kaspar in 1685 and 1731. Melville C. Branch, *An Atlas of Rare City Maps: Comparitive Urban Design, 1830-1842*, p. 46.

[7] Bernardo Bellotto (Canaletto) was appointed court painter to Friedrich August II in 1748. Anna Brenken and Michael Pasdizior, *Schönes Dresden: Beautiful Dresden*. p. 47.

forerunner in the fitting of buildings in a larger context of the city. It was during this time that planning of this type could also be found in Vienna's Ringstrasse (1850's) and in Cologne's Ringstrasse, by Hermann Joseph Stübben (1888) (figs. 2,3).[8]

Also in the 18th century, urban design consisted of primarily two elements. The first resulted from the development of urban fabric that emphasizes the space of the street. A second was the creation of spaces with buildings either residing in the space or used in a manner to describe the space. The *Neuemarkt*,[9] which developed before the *Altmarkt*, was a plaza for the *Frauenkirche* or women's church. The *Neuemarkt's* purpose and function was stately because the *Schloss* or King's castle (figs. 4-6) was located on its western edge. The *Altmarkt*,[10] developed later in a more central location as the city grew. Both places were always an important aspect in the lives of Dresdeners and the city's history.

North of the *Neuemarkt* was the *Brühlsche Terrace*. While the terrace was created out of a need to protect the city from the flooding of the Elbe the designers created an element that exceeded its function. Constructed during the 18th century, the terrace became a mediating space between the main plazas of the city, important civic buildings, and the docks along the river. A garden and a café were planned along the southern edge and were used quite frequently by the nobility of that period (figs. 6,7).[11] Today the *Brühlsche Terrace* is still a magnificent piece of urbanism and still serves a dual role in the city. In an architectural sense, it is part building, providing a café and storage underneath. Urbanistically, it termi-

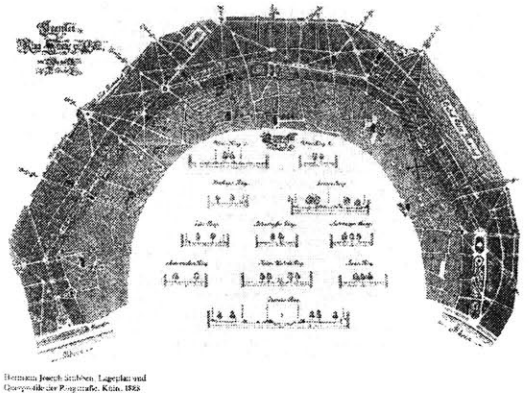


Fig. 2.2 - Proposal for Cologne's Ringstrasse.

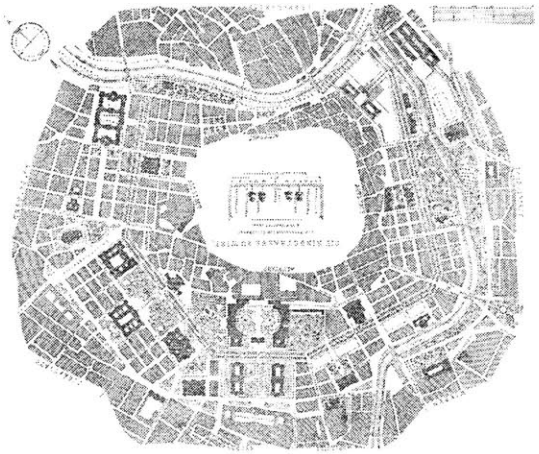


Fig. 2.3 - Proposal for Vienna's Ringstrasse.

[8] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p.152.
[9] Dresden's new market located in the center of the city.
[10] Dresden's old market located in the center of the city.
[11] The lithographs and paintings done by Hans Anton Williard and Johan Carl August Richter suggest the terrace was the place for nobility to gather, rather than the whole population of the city.

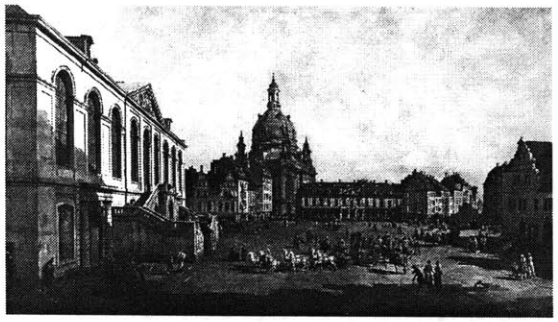


Fig. 2.4 - Dresden's Neuemarkt by Bernardo Bellotto.

Fig. 2.5 - Dresden's Altmarkt by Bernardo Bellotto.

nates of the streets running north towards the river and provides a transition between the lower levels of the city and the terrace level along the waterfront.

The greatest influence on the shape of Dresden was the industralization of the 19th century. This is in part due to the railways that linked Germany with other countries in Europe. During the 1830s, the first rail line of Germany, connected Fürth and Nuremburg. A second line was built in 1839 to connect Prussian Elberfelt and Düsseldorf. A third one built in 1839, connected Leipzig to Dresden.[12] This progress dramatically changed the growth pattern in German cities. Soon, settlements on the periphery appeared and settlements that were already on major shipping routes expanded. This expansion is typical in other European cities during the time after the industrial revolution. The industrial revolution helped Dresden grow economically and physically as the core of the city experienced higher densities.

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[12] Agatha Ramm, *Germany 1789-1919: A Political History*, p. 226.

2.2 Housing in Dresden

Dresden's housing of the 18th century had a uniqueness that maintained roots of lower density structures. The building typologies evolved from ones that defined streets to ones that were always thought of as linked to the streets (fig. 10). The building and streets were married based on traditional thought. To have one without the other would have constituted an environment that is non-urbanist. This street and building relationship is the first characteristic that is important to the housing in Dresden (figs. 9). A second characteristic in the urban block is the courtyard. A clear definition can be seen in the blocks as one moves from the street through a passage to arrive in the semi-private area of peoples lives in that block. The inside/outside relationship reinforces identity by clearly defining the line between public and private notions in the city.

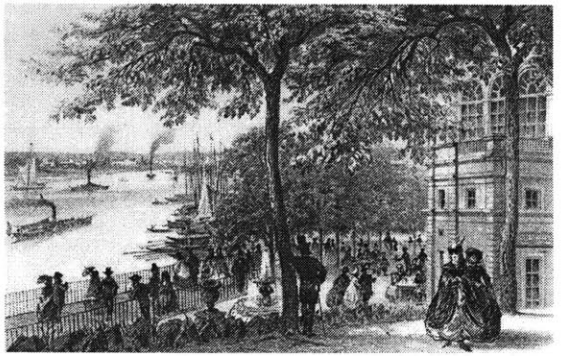

Fig. 2.6 - Lithograph of the Belvedere on Brühlsche Terrace around 1860 by Hans Anton Williard.

The mixed use function in most of the inner core buildings in Dresden establish a third characteristic reinforcing a strong balance between architecture and urbanism. These structures included shops on the ground floor while providing either offices or apartments on the subsequent floors. By describing the ground floor with a common horizontal line, a uniform pedestrian level could be maintained even though the height of the buildings might be different. The demarcation of an entrance on the ground level is a fourth characteristic that is very important in the way the building relates to the street and the inner courtyard. The gateway, which led to the inner courtyard, was an architectural and urban device that implied three options for the pedestrian. One could enter the shop directly, enter the courtyard, or access a common stairway to the upper floors. There was no mistake that this architectural element was needed to clearly convey these options to the pedestrian and, more importantly, it was a vocabulary that was con-

Fig. 2.7 - Brühlsche Terrace by Johan Carl August Richter.

Fig. 2.8 - Urban housing that creates a uniform street with distinct horizontal subdivisions.

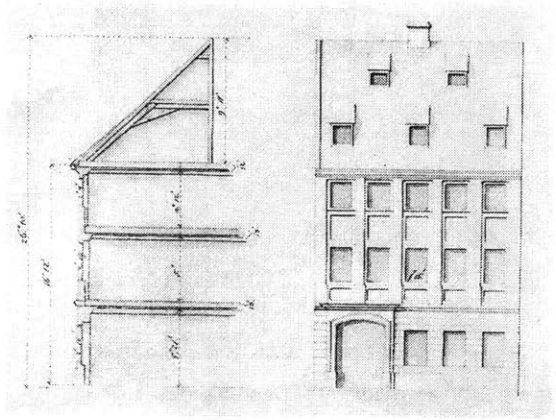

Fig. 2.9 - Typical urban housing in Dresden from the 18th century.

scious in the minds of the public (fig. 10). A fourth characteristic that is related to the third was the ground floor level. The fabric of the inner core followed a rule that had transformed as buildings added more floors to accommodate a great density (fig. 11).

All of these elements, if used separately, are meaningless, but in summation they are pieces that can be fit together and arranged in different ways. They are the 'standard' from which everything can deviate. While they are common for most European cities, the way that the blocks are arranged in relationship to the elements make all cities unique.[13] These typologies and elements remain constant through Dresden's evolution into the late 19th and early 20th centuries.

[13] It is to be noted that the high density of Dresden did not occur until the late 19th century. Dwellings in smaller towns in Germany contained these elements, only setbacks modified the proximity of the building to the street. In other words, low density does not necessarily mean non urbanism.

2.3 The Move from Urban to Rural

The industrial revolution that spread across Europe made its way to Dresden towards the end of the 19th century. Agatha Ramm, in her book *Germany History and Politics*, states that "by 1895 over 35% of her [Germany's] population still lived on the land, as against 8% in Britain, but the flow to the towns was steadily continuing."[14] Small towns and suburbs on the periphery could be built and provide a quick route into the city to work. Much of the higher class still lived in the core. Barbara Miller Lane states that "the migration of rural population to the industrial cities in response to the expansion of war industries had brought about a new demand for urban housing which could not be satisfied in wartime [World War I]."[15] As in other cities, Dresden's economy grew stronger because of the industrial revolution, but the higher densities attributed to people moving into the city would lead city planners its urban structure.

The theories that appeared as a defense of high densities from the industrialization came from Ebenezer Howard's "Garden City" movement.[16] It gave a voice to the people who were frustrated at the high densities of the industrial city. Smoke from plants and factories to the west of Dresden along with the coal burning in residential blocks would make living there miserable. The Deutsche *Gartenstadtgesellschaft* (German Garden City Association), founded in 1902,[17] was created as a means to solve the strain of over population in Germany's cities. According to planning researchers, at the Department of Town Planning at the University of Wales, "the steady increase in the size of the cities and the large amounts of arable land they were swallowing up as they 'gobbled up neighbouring villages' required a different approach [to the planning of cities]."[18] Later, in 1910, the *Zweckverban Gross-Berlin* (Greater Berlin Federation) and the

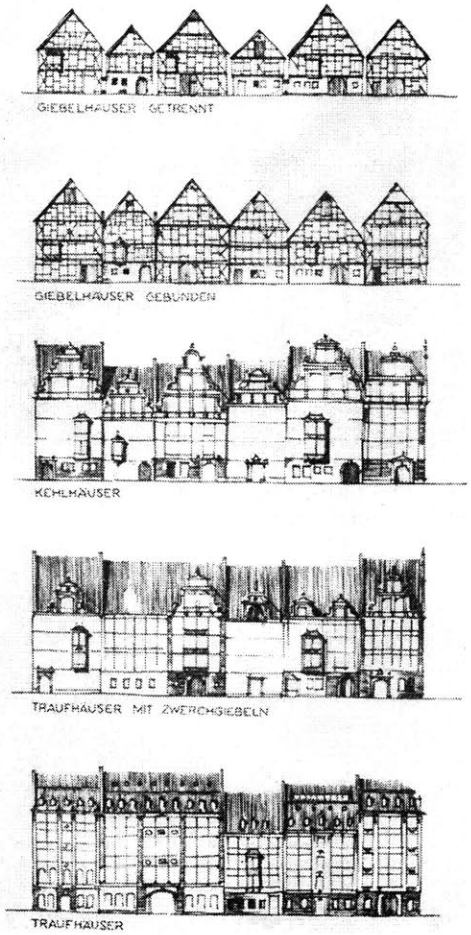

Fig. 2.10 - Development of Dresden's urban housing.

[14] Agatha Ramm, *Germany 1789-1919: A Political History*, p. 393.
[15] Barbara Miller Lane, *Architecture and Politics in Germany*, p. 88.
[16] Ebenezer Howard established the Garden City Association in England. Raymond Unwin (1863-1940) and Barry Parker (1867-1947) helped make Howard's Garden City model a reality in the settlement of Letchworth. Hall, Peter, *Cities of Tomorrow*, pp. 96-98.
[17] The German Garden City Association was started by a German salesman, Heinrich Krebs, who was influenced by Howard's book, *To-morrow*, published in 1898. Hall, Peter. *Cities of Tomorrow*, pp. 92,115.
[18] L. Lehmann, J. Alden and V. Newcome, *Planning and Planning Research in Germany with Special Reference to Schleswig-Holtstein and the "Program Nord"*, p. 3

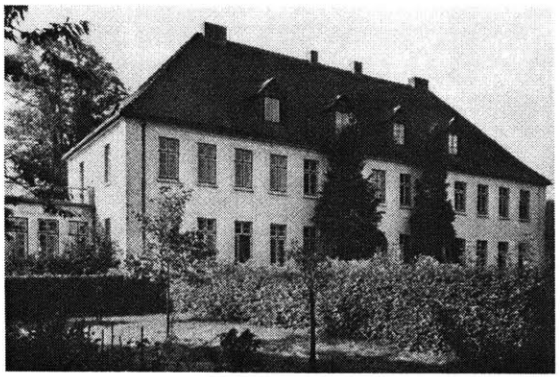

Fig. 2.11 - Stienhorst Estate by Paul Schultze-Naumburg in 1910.

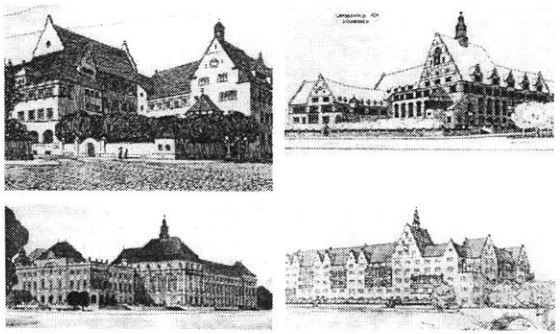

Fig. 2.12 - Competitions of two schools, a university, and apartment style housing by Paul Bonatz.

Grünflächenkommission (Green Belt Commission) were set up as a means to plan new areas of living that was beyond the limitations of the German Garden City Association.[19] The change in social tendencies also led to a shift in population from urban to rural. People getting married at a young age and smaller sized families after World War I placed emphasis on the need for smaller dwellings.[20]

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[19] L. Lehmann, J. Alden and V. Newcome, *Planning and Planning Research in Germany with Special Reference to Schleswig-Holtstein and the "Program Nord"*, p. 3

[20] Barbara Miller Lane, *Architecture and Politics in Germany*, p. 88.

2.4 The Traditionalists and Modernists

While the theories of planning shifted their focus from cities to the outer edges and beyond, the architecture of the 1900s went through a similar transformation. The architectural type of the periphery in Dresden and other Germany cities was a mansion type design for the middle class population. These types of buildings usually adopted a traditional style such as gothic or neo-classical. Architects, such as Paul Schultze-Naumburg, broke from the tradition as he designed buildings with a traditional rural, German pitched roofs and timber or masonry construction. The abstracted ornamentation found in his buildings are statements made against historic replication (fig.12,13).[21]

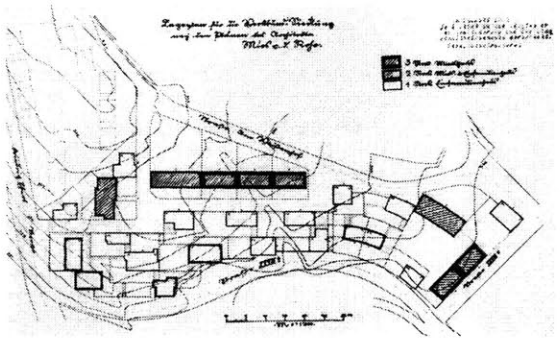

Fig. 2.13 - Final plan of the Weissenhofsiedlung Plan, Stuttgart, Germany.

The sentiments displayed in the work of Paul Schultze-Naumburg signified a movement that emerged during the 1900s. This movement consisted of two groups that shared a common belief in a connection to the historical and regional past found in Germany's art and architecture. The first group, known as the *Heimatschutz*,[22] was founded in 1904 by Schultz-Naumburg and included two other architects: Konrad Nonn and Emil Högg. Emil Högg was a professor of architecture at the *Technische Hochschule* in Dresden. The *Deutscher Werkbund*, founded in 1907, was the second group involved in preserving a part of the past, while looking towards the future. The only people involved in this, which also included Schultze-Naumburg, were Friedrich Naumann, Ferdinand Avenarius, Eugen Diederichs, Hermann Muthesius, Paul Bonatz, Josef Olbrich, Peter Behrens, and Heinrich Tessenow. The *Werkbund* included a more diverse group of writers, theorists, and architects. Olbrich and Behrens, along with Hans Poelzig, had been part of the *Jugendstil*,[23] which was founded in 1900 and lasted about fifteen years.[24]

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[21] Barbara Miller Lane, *Architecture and Politics in Germany*, p. 16.

[22] The Heimatschutz were local organizations that opposed the industrial movements. Barbara Miller Lane, *Architecture and Politics in Germany*, p. 248n59.

[23] The Jugendstil was a Austrian movement of the decorative arts. Kostof, Spiro. *A History of Architecture: Settings and Rituals*, p. 687.

[24] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p.19.

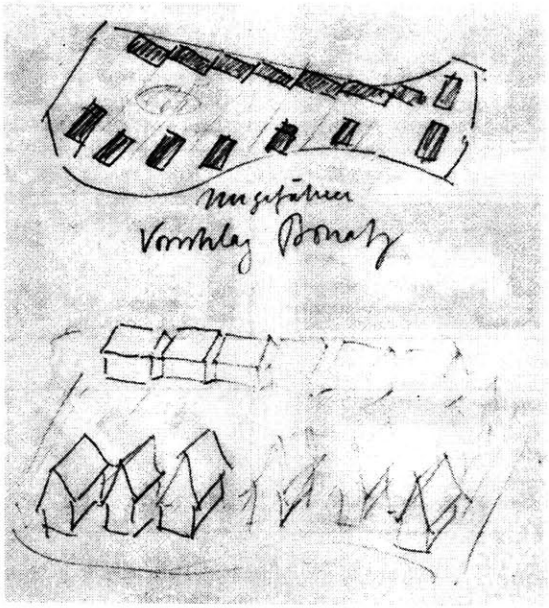

Fig. 2.14 - Paul Bontatz's proposal sketch for the same site.

Both the *Heimatschutz* and the *Deutscher Werkbund* pushed the envelope of the new modernist style. Plain, unadorned facades give the impression of simplicity and clarity, which could be adopted as a way of living. People in the *Deutscher Werkbund* were connected to an industrial trend. Barbara Lane describes their primary objective as centered on the "idea of improving the position of German goods on the international market by introducing in their design a higher standard of taste".[25] This can be seen in the Cologne exhibit of the *Werkbund's* work of 1914.

This radical schism in beliefs of both groups did not go unchallenged (fig. 16). The *Heimatschutz*, or what became known as the Traditionalists, wanted architecture to continue with a reverence for the past while they addressed the new unadorned methods.[26] In November 1918, a break in ideals solidified as a group of architects and artists lead by Bruno Taut founded the *Arbeitsrat für Kunst*.[27] Its goal was to see that Germany and its architecture progressed in a new way. Five months later, Walter Gropius would take Taut's place as the group's leader and rename it the *Bauhaus*.[28] The significance of this group is that the architects including, Mies van der Rohe, Jacobus Johannes Pieter Oud, and Le Corbusier, all had international reputations.

Both the traditionalists and modernists progressed from rural singular houses to bigger and more elaborate projects with great success. Traditionalists in the *Deutscher Werkbund*, such as Tessenow in Dresden, collaborated on a design of a garden city, known as Hellerau, about five miles northeast of Dresden. The

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[25] Barbara Miller Lane, *Architecture and Politics in Germany*, p. 27.

[26] "Ornament, or ornamental qualities are everywhere; but the less we demand of it the better it is; the more indifferently we treat it the friendlier." "On our path through life and labour, ornament expresses the tired or resigned quality which is always in us. Thus we fight ornament with the same necessity with which we fight everything else half done, or tired, resigned or contented." Heinrich Tessenow *in Housebuilding and Such Things*. Translation by Wilfried Wang. Richard Burdett and Wilfried Wang, eds. *On Rigor*, p. 27.

[27] The *Arbeitsrat für Kunst* translates into work-advice for art.

[28] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p.45.

concept behind the design of Hellerau was the common theme of a strong relationship between agriculture and the community. The German people adapted well to his working and living model, since it followed their traditional methods and ideals.[29]

The *Siedelungen* by the modernists were large scale equivalent of planning a building in a functional style.[30] One of the most famous projects was the *Deutscher Werkbund's Weissenhofsiedlung* for the Stuttgart Exhibition of 1927. Seventeen different architects designed and built twenty-one structures with the assignment "to design homes for 'inhabitants of big cities'".[31] The plan was rather informal in organization and broke from a traditional method of positioning dwellings to front on the road (fig. 14). The implied 'courtyard' in the plan shows the method of abstraction and minimalism used in defining spaces. By minimizing the number of units on the site, the architects were able to manipulate space much the same way they did on the interior of their buildings. The concept of space as a plastic interior construct externalized to evoke a larger presence and scale outdoors. There is a connection to this notion in the "Garden City" model as the figure/ground ratio of buildings to green space grew smaller (fig. 15). This new idea of living in a rural landscape became increasingly popular as architects realized the spatial importance. The modernists, in 1932, codified their 'new city' ideals in Thesis 77 in the *Charter of Athens*. Housing, Work, Recreation, and Traffic (the system uniting the first three) were defined as the basic principles for modern urban design and were widely adopted in projects like Stuttgart.[32]

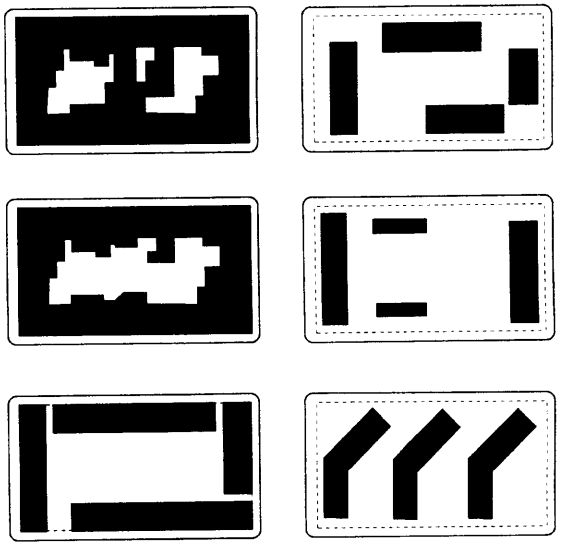

Fig. 2.15 - Diagrams of the dispersion of elements in a block from the adaptation of modern planning priciples.

[29] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p.153.[30] The *Siedlungen* were a new typology in the form of a development of low-rent housing.
[31] Karen Kirsch, *The Weissenhofsiedlung*, p. 33.
[32] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p.157.

ARCHITECTURAL MOVEMENTS IN GERMANY: 1900 - 1935

INITIAL MOVEMENTS
JUGENDSTIL (1900-1915)[1]

DEUTSCHER WERKBUND (1907)[2]

MODERNISTS
BAUHUAS (1919)[3]

"RING GROUP"[4]

CIAM (1928)

TRADITIONALISTS
HEIMATSCHUTZ (1904)[5]

KAMPTBUND DEUTSCHER
ARCHITEKTEN UND INGENIEURE (1932)[6]

Deutscher Werkbung
Bund Deutscher Architekten

"BLOCK GROUP" (1934)[7]

REICHSKULTURKAMMER
IN GOEBBELS'S PROPAGANDA MINISTRY (1935)[8]

Fig. 2.16 - Sources listed in appendix A.

While the middle of the 1930s approached, the modernists were already known as the 'Ring' group. However, this was not a tight circle. Tensions between German members in the group continued to escalate since the Stuttgart exhibition in 1927. The success of the *Weissenhof* project provoked the traditional minded members of the 'Ring' group to conceive their own group. The newly founded group adopted the name 'Block' as a retaliation against the 'Ring' group.[33] Paul Bonatz, who had connections to the *Deutscher Werkbund* and *Bauhaus*, decided to join Paul Schultz-Naumburg, Paul Schmitthenner, and other traditionalists. The reversal in positions was evident when Bonatz and Schmitthenner were working with the Werkbund on the *Weissenhof* project. Bonatz noted

> the whole thing has not been approached in a practical way at all. Here is one house, there is another. Nobody has an uninterrupted view; everyone looks into someone else's bathroom window. Everything is scattered, nothing aligned...No one enjoys any free space. It will cost about four times as much for terracing as is necessary. The *Werkbund* is always talking about rational building. And that means taking technical factors into consideration.[34]

Schmitthenner in his remark about the plan stated

> this is a part of the Stuttgart city expansion plan: it's a town plan. This is something that calls for organization, in many different respects. If you look at that plan, it's a slap in the face for all that. Everything is artistic, picturesque, aesthetic; delightful in a movie-house or in an exhibition; but this is stupid stuff. It throws years of patient evolution straight out the window.[35]

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[33] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p.47.
[34] Paul Bonatz's remarks regarding the *Weissenhofsiedlun* plan. Karen Kirsch, *The Weissenhofsiedlung*, p. 37.
[35] Paul Schmitthenner's remarks regarding the *Weissenhofsiedlun* plan. Karen Kirsch, *The Weissenhofsiedlung*, p. 37.

The strategy for design in the cities was different. Architects had a choice between two fundamental positions: design with context in mind in a way that benefited the city or design for solely architectural edification. One could argue that some of the best urban fabric achieves both. It is apparent in the nature of ideologies that the traditionalists would take the contextual approach and the modernists the object motivated approach. During the inner war period the modern methodology that supported the removal of objects to the bare minimum, to define an open area, did not merge successfully with the traditional ideologies of civic space. However, the effects of this conflict would not be seen in Dresden or any and other German cities until the destruction caused during World War II.

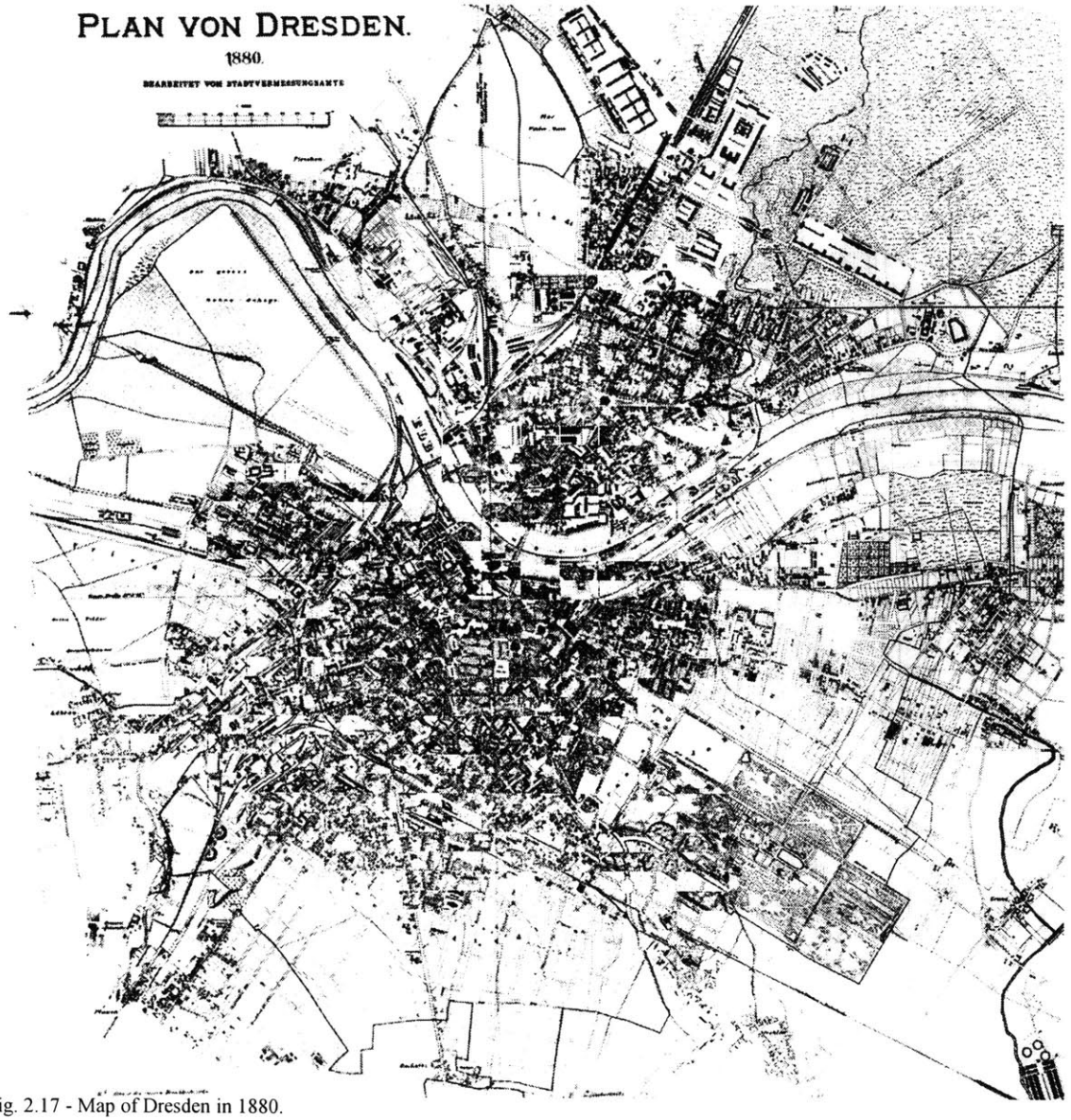

Fig. 2.17 - Map of Dresden in 1880.

Fig. 2.18 - Map of Dresden in 1889.

2.5 Adoption of a Traditional Style

During this period of tumult in architectural ideology, there was a corresponding tumult in German politics. Germany, up until 1870, was a set of states that operated independently. By winning the war with France, Germany was able to expand its boundaries on the west.[36] In 1878, there were six political parties: two Conservative, three Liberal, and the Social Democrats.[37] At the turn of the century a new chancellorship was head by Bernard von Bülow, who dealt with conflicts between the agricultural and urban working-class groups.[38] World War I erupted in early August 1914, as Germany declared war, first on Russia and next on France. It was during this period, that German Nationalism was at its peak.[39] The Weimar Republic with Social Democrats in the Reichstag[40] would take control of Germany's political affairs in 1919 after World War I.
The rise of Hitler in the 1920s evoked a higher synergy of nationalism that had been present since

[36] Agatha Ramm, *Germany 1789-1919*, p. 280.
[37] Agatha Ramm, *Germany 1789-1919*, p. 345.
[38] Agatha Ramm, *Germany 1789-1919*, p. 403.
[39] Eugene K. Keefe, *East Germany: A Country Study*, p. 20.
[40] German Parliament. Agatha Ramm, *Germany 1789-1919*, p. 307.

the turn of the century. Rough times during World War I and the depression (1929-1933) reduced the hope and spirit of the German people.[41] This nationalism only perpetuated the conflict between the traditionalists and modernists. On February 27, 1933, the National Socialist Party replaced Wiemar Republic in the German government after a fire broke out in the Reichstag. A new era of planning appeared as large housing projects in a traditional "Garden City" style were funded by the Nazi Party.[42] These large projects would include larger units. This was apparent in a statement by Hitler in the late 1940s

> that in the future at least 80% of the housing consist of four-room dwellings of at least 74 square meters (almost 800 square feet) of floor space, in order to provide ideal conditions for the large families that would be need[ed] to make up wartime population losses. Main streets with streetcar lines on their own rail island should be at least 50 meters wide.[43]

It was also known that Hitler disliked cities and their density. Under the direction of Gottfried Feder, Hitler used the housing program as a means to shift the population from the cities to more rural areas on the periphery. In Feder's words "the metropolis has destroyed men's feelings for their homeland [Heimat]....the reincorporation of the metropolitan populations into the rhythm of the German landscape is one of the principal tasks of the National Socialists government."[44] It was his belief that the German people stay true to their heritage by working the land. Not many changes took place in cities, but the periphery continued to grow. The First World War had little effect on the city. Only the minimal change to spaces, the adding of circulation via trolley lines, and increase in the industrial sectors for military production can be seen in a comparison of Dresden before 1900 and after 1917 (figs.17,18).

Fig. 2.19 - View of the Prager Strasse in the Neuestadt.

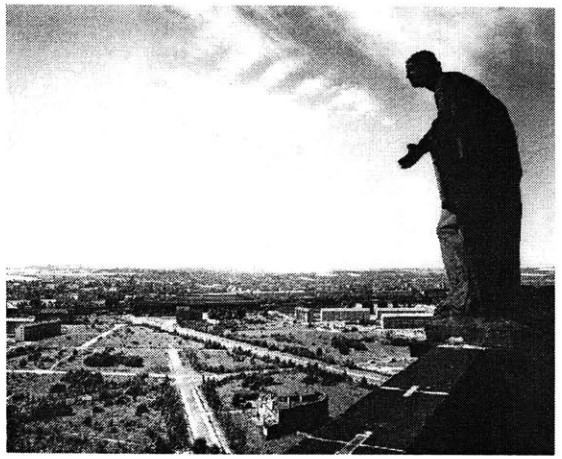

Fig. 2.20 - View of the Pirnaischer Platz from the Rathaus tower.

[41] Eugene K. Keefe, *East Germany: A Country Study*. p. 3.
[42] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p. 158.
[43] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p. 174. These 50 meter wide streets are found throughout Dresden, particularly the ring road around the inner core.
[44] Barbara Miller Lane, *Architecture and Politics in Germany*, p. 205.

Fig. 2.21 - Map showing Dresden of the present and Dresden before World War II in grey.

The architectural movements and city planning techniques between the traditionalists and the modernists have been presented above. This history may serve as a basis for understanding the situation of housing and city planning up until World War II in the city of Dresden. From this baseline, a comparison can be made between the traditional and modernist concepts just after World War II so that one can see the lapse of traditional ideas in a new urban framework.

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[45] Arnold Whittick, *Encyclopedia of Urban Planning*, p. 450.
[46] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p.8.
[47] The women were employed in cities to clean up the rubble left from the bombings. Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p.22.

2.6 Post-World War II: Adaptation of New Ideals to New Context

On February 13/14, 1945, the old city of Dresden was destroyed. Allied bombs destroyed over 85% of the city.[45] Quoted as "the most spectacular attack" it was "a raid that served little clear military purpose beyond killing masses of civilians and obliterating a symbol of German culture."[46] Just as both the *Heimatschutz* and Modernist movements were peaking in the 1930s, the war slowed their momentum. The impact of the bombing, which occurred over a two-day period, disrupted the way of life for most people that lingered for more than four years. The bombing, in a way, was a crucial event that stagnated the urban planning process on hold and thus allowed both movements to assess the current situation. Cleanup in Dresden started immediately with the *trümmerfrauen* or 'rubble women'.[47] Since many of the men were in the army, the majority of laborers were women and children. The best that they could do in cities was to move the rubble from the streets to the bombed out lots, reuse the rubble, or cart it outside of the city (figs. 19,20).

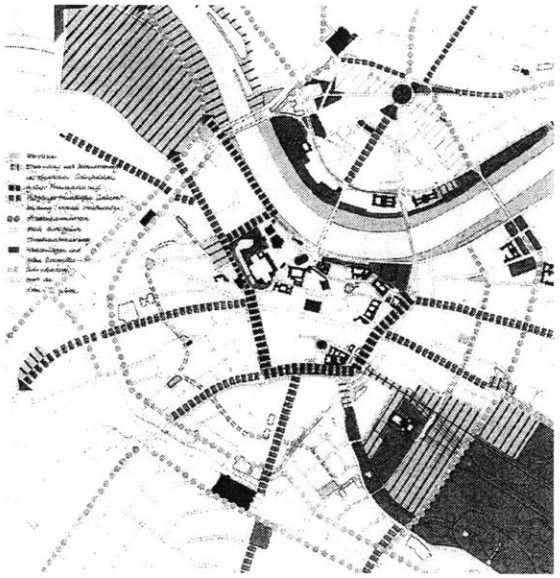

Fig. 2.22 - Diagram of the emphasis on vehicular circulation routes from the inner core.

Even though there was a tremendous decrease in population in cities due to the bombing, a decrease was evident even before the bombing began. Most people had already moved to the edges or into rural areas, or prepared evacuation drills when the air raid sirens sounded.[48] In Michael Ermarth's book *America and the Shaping of German Society* he states that

> "The changes that came in the wake of the mass evacuations – the flight and expulsion of millions of people – can also be called revolutionary in a genuine sense. Hundreds of thousands of city dwell ers were transferred to backward rural areas. In the course of an unparalleled migration of peoples, millions of Protestants came to live in regions previously inhabited by Catholics, and likewise mil

[45] Arnold Whittick, *Encyclopedia of Urban Planning*, p. 450.
[46] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p.8.
[47] The women were employed in cities to clean up the rubble left from the bombings. Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p.22.
[48] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p.11.

lions of Catholics were transferred mainly to Protestant areas. This constituted the deepest impact of new and alien elements on many rural areas since the Napoleonic Wars.[49]

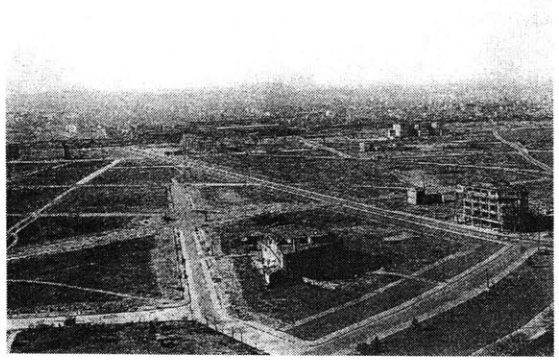

Fig. 2.23 - Rebuilding of the streets in the area of the *St. Petersburgerstraße* around 1950.

The war instigated a modern way of thinking of cities, much like the Industrial Revolution had about one hundred years earlier. Fear of further destruction prompted plans for underground cities and cities formed in the landscape. Jeffry Diefendorf, in his book, *In the Wake of the War*, describes the state of bombed cities in Germany at the time:

> The destruction was so great that in some cases authorities proposed abandoning the bombed cities entirely and building new cities, perhaps underground, to ensure protection from air raids. Other proposals advocated bulldozing the rubble, planting grass and shrubbery, and allowing a new natu ral landscape to emerge. A new city could then be built that would harmonize with that landscape. The first step in this process of course would be relocating the population of the old bombed city. Such innovative proposals were never implemented. Instead, the bombed cities were rebuilt above ground on their original sites.[50]

The landscape option was much more feasible in light of the fact that the bombed city cores had large amounts of open lots to be filled with modern ideals of city making. It was in this way that a connection was made either consciously or unconsciously, to Howard's "Garden City". The efficient 'free-movement city' that had appeared in the years after the war from the ideas of CIAM and the Charter of Athens in 1932. This type of planning was not only seen in Germany, and the rest of Europe, but in larger cities in

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[49] Michael Ermarth, *America and the Shaping of German Society*, p. 25.
[50] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, pp.11,12.

the United States. In the European, particularly German cases, there were huge challenges to fill in a period of twelve years of city planning and building as a result of the war and the rule of the Third Reich (figs. 21-23).[51]

As previously stated, Dresden's recovery was delayed by lack of possible options to move forward. In hindsight, Jeffry Diefendorf describes Klaus von Beyme's view that "postwar architecture can be grouped in three categories: reconstruction literally true to the damaged or destroyed original, new building that attempted to emulate traditional styles through adaptation to local conditions, and completely new building in a modern style."[52] Diefendorf adds that a fourth category of "utilitarian building" dominated many of the cores of the German towns.[53] Much of the delay was also from lack of funding and high inflation.[54] Reparations for the war had to be paid out to the allies as designated in the Warsaw Pact.

New housing for returning soldiers and people previously taking refuge in rural areas around Dresden became the primary focus. The German housing stock in 1939 was sixteen million units. Near the end of the war 2.5 million were destroyed with another 1.6 million heavily damaged.[55] Temporary barracks were constructed from cheap materials for the people who had no housing. People who had a residence in the city salvaged what they could from their properties, while the state was involved in the large-scale cleanup. Dresden, in particular, was reduced to 25 million cubic meters of debris.[56] Much of the housing stock was ruined and needed rebuilt.

Fig. 2.24 - Photo of block housing created early in the socialist period around 1950.

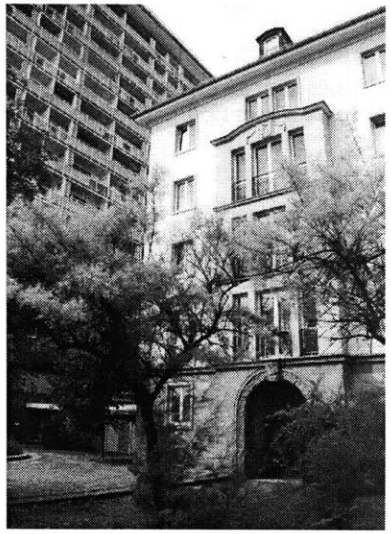

Fig. 2.25 - Photo showing the entry into the courtyard and stair-well to apartments.

[51] Michael Ermarth, *America and the Shaping of German Society*. p. 47.

[52] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*. p.54.

[53] This type of building is described as "apartment buildings, three to five stories high, with plain, plastered facades painted in dull colors, often simply gray. Such buildings were neither modernist nor adapted to local architectural traditions. Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p. 55.

[54] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p. 111.

[55] Jeffry Diefendorf elaborates that the 1.6 heavily damage meant "that 50 to 80% was in ruins, uninhabitable except for perhaps the cellar, and beyond any simple repair. *In the Wake of the War: The Reconstruction of German Cities after WWII*, pp. 109, 125.

[56] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p. 14.

Fig. 2.26 - Photo showing the interior court.

Fig. 2.27 - Detail of entry roof and cornice.

Fig. 28 - Detail of entry ornamentation.

2.7 Rehousing in Dresden

The design of the new housing took the form of block housing, which proved efficient in two ways. Its layout was flexible and worked within the blocks that were totally cleared. It also provided housing for a higher number of people than the single detached low-density dwellings. The sectors that are particularly important in understanding the relationship between old ideas and new ones are located near the city core, just outside St. Peterberger Street, the ring-road that follows the old fortifications around the *Altstadt*. By date, the city had only a hand-full of historic buildings, therefore, the empty blocks and streets that serviced them would influence their development. Planning succumbed to the automobile criteria with three other factors, work, housing, and recreation, weaved in it.[57] The emphasis, in the early stages, was placed on work and housing. With context obliterated, architects and urban designers had to start from tabula rosa. In 1947, a manifesto outlining how to proceed with the rebuilding of bombed cities was signed by key architects and planners, such as Leitl, Hans Schwippert, Richard Döcker, Tessenow, Fritz Schumacher, and Robert Volhoelzer. Volhoelzer wrote:

> to want to rebuild in the old form or perhaps to copy what had been destroyed is false. What is gone should remain gone....We don't want to design [cities as] museums, but rather we want the courage to develop creatively something living, though, if possible, something of equal value.[58]

The early block housing resembled rural structures in their ornamentation and form. Paul Naumburg-Schultz and Hans Schimmhenner's work of the 1870s served as precedents for the newer building type. Decoration, in minute amounts appears in the cornice, window lintels, and archway leading to the court-yard. The modernist flat roof (figs. 32,33) was not incorporated into the design, but rather a gable that

[57] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p.157.
[58] Translation from by Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p. 71.

better represented the traditional city fabric. The structures were usually planned parallel to the street. The acknowledgment of the first traditional planning element appears although it lacks the fourth element, which was commerce on the ground floor (figs. 24-31). However, in the façade there is a clear understanding of the ground floor, which is a continuation from the pre-war fabric (fig. 28). The third element borrowed from the earlier city fabric was the strong creation of entry. The entry now served two roles: a means of access to the courtyard, and a means of access to the apartments above.[59] All of these ideas were in direct conflict with what the modernists before World War II wanted to achieve (fig. 33).

Fig. 2.29 - Diagram showing the rebuidling of the core.

Where the modern architectural style was lacking, modern urban planning principles became the great equalizer. The placement of the school in the courtyard or in the middle of the structure reinforced the socialistic attitude towards education and its relationship to the community. Everyone in the units had about the same amount of space and shared the same amount of exterior courtyard space. The 'campus' look of other projects, such as *Weissenhofsiedlung* in Stuttgart, appear to have made their way in Dresden, even though there was a change in height to provide more units. The major difference is that the modernists after World War II foresaw the need for higher structures to provide places for more people (figs. 32,33).

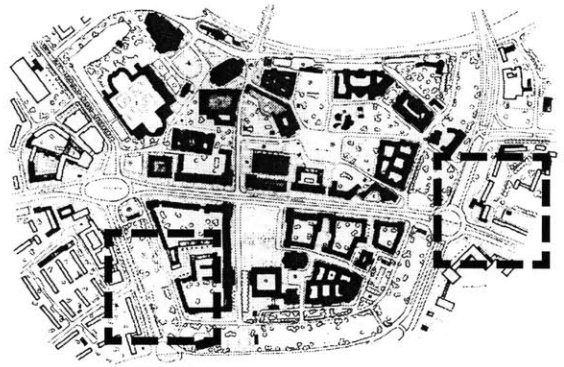

Fig. 2.30 - Diagram showing the block housing to be built around the core.

As rapidly as these types of structures appeared on blocks so did principles that are more modern. Soon any existence of the early traditional principles vanished. The modernists wanted to limit the amount of objects defining the center courtyard. This approach, where only a few buildings are located on a block

[59] Jeffry M. Diefendorf, in his book, *In the Wake of the War*, on page 111 describes that, "Reformers hoped to build inexpensive, low-density housing set in greenery with ready access to shops, public facilities, and the workplace. This goal reflected the enthusiasm of the reformers for the garden city movement as well as their hostility toward the industrial city...The ideal was a one- or two-story cottage, but the enormous demand required that much of the housing take the form of multistory apartment complexes, including small apartments for single men and women. Situating and designing such buildings to provide a maximum of air and light were primary considerations. For models, housing reformers and town planners looked to the buildings constructed at architectural exhibitions, a tradition that began at the Darmstadt exhibition of 1901 and led to the 1927 Weissenhof exhibition in Stuttgart."

Fig. 2.31 - Diagram showing the concept of the ring roads around the core.

and new 'courtyard' spaces straddled streets, was clearly demonstrated in Dresden. The lack of a definite courtyard space caused the meaning or identity to be lost and fragmented (fig. 15).

With the absence of the commercial ground floor, the need to walk along the street subsided. Daily actions of the people were focused inward away from the street as they went to visit others, or pick up food from markets. Even public pedestrian circulation was allowed to pass through the blocks. Dependence on the center of the city declined, except for those who had jobs in the city. As in the past, the suburbs grew even more, as large housing structures were built around Dresden resembling satellite cities of 20,000 to 50,000 people (figs. 34).[60]

The growth of the periphery is not as a result of the practices of the Third Reich. Pre World War II

[60] These self contained cities are also found in and are influenced by Soviet planning models. The theory behind these models come from Russian urbanist L. Sabsovich (1929). " Sabsovich envisioned the entire population living in medium-sized cities. He argued that the concentration of the population in compact towns would increase the free land area for agricultural production, while simultaneously every inhabitant would benefit from the cultural, educational, health, and other public services of the urban environment." Arnold Whittick, *Encyclopedia of Urban Planning*, pp. 246,247.

2.8 Suburbanization and Open Spaces

notions about the city were passed along with a reverence of past traditional architecture in the midst of radical urban changes. At first glance, it appears that a suburbanization in East and West Germany's urban environment is a result of American development and methods after World War II. The appearance of large residential buildings in large plaza settings resembles many projects in the United States. However, in *America and the Shaping of German Society*, Michael Ermarth clarifies the notion by stating that "the stylistic traditions of the German *Bauhaus* and the 'New Objectivity' in architecture, which after 1933 took hold and developed in the U.S.A., stood for another variant, which some contemporaries regarded as 'modern America'."[61] This phenomenon is worth further study to discover the factors that caused two drastically different cultures to develop in a similar manner.

Fig. 2.32 - Air view of Wiessenhof Siedlung in Stuttgart, Germany.

As the urban fabric in Dresden changed so did the concept of its civic spaces. The thoughts and designs of Albert Speer and Nazi Monumentalism in Berlin have influenced these changes. Public space and Nazi architecture were monumental to demonstrate the power of the regime over the individual.[62] The housing built after the war in Dresden, and other cities, show an increased need for space or monumentality in two ways. The first is based on design for light and air as diagrammed by Walter Gropius for CIAM in 1930 (fig. 35).[63] A second, more abstract theory is the relationship between building height to landscaped courtyard (fig. 36). Monumentality was not limited to the periphery of the city. In Dresden, the historical *Altmarkt* was redesigned in a competition. Plans to enlarge the size of the space and height of the town hall clearly shows a continuation of Nazi design principles regarding large scale after the war (fig. 37).

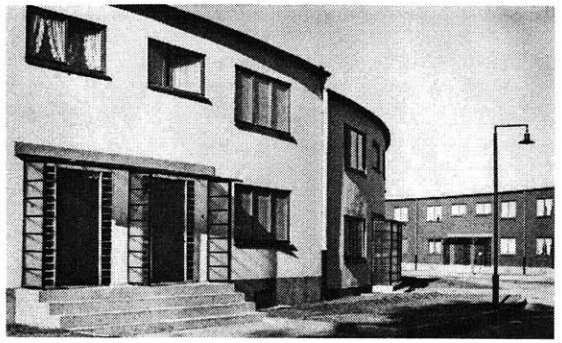

Fig. 2.33 - Siedlung in Römerstadt.

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[61] Michael Ermarth, *America and the Shaping of German Society*, p. 139.
[62] Jeffry M. Diefendorf, *In the Wake of the War: The Reconstruction of German Cities after WWII*, p.53.
[63] Kenneth Frampton, *Modern Architecture: A Critical History*, p. 140.

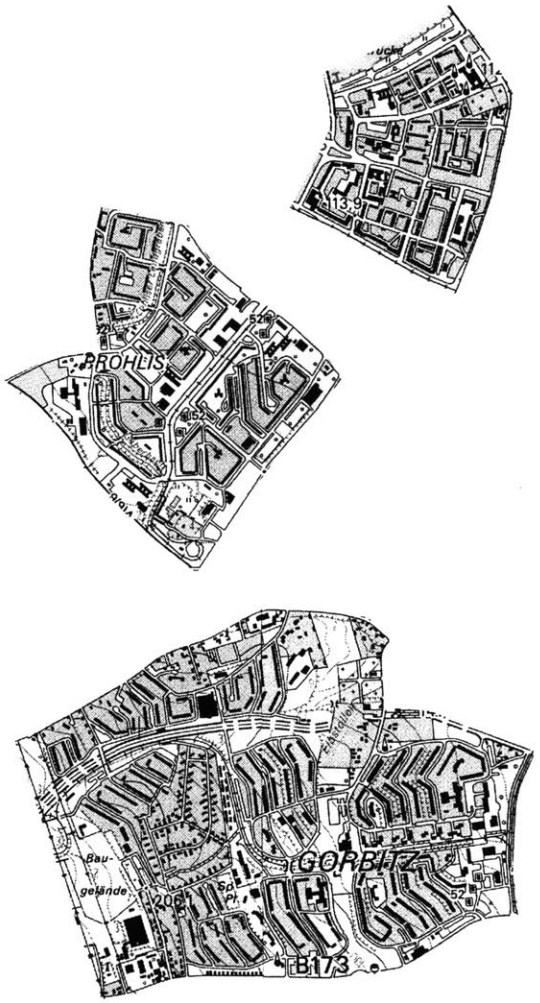

Fig. 2.34 - Sectors showing the early housing blocks compared to the satllite towns of Prolis and Gorbitz.

2.9 Conclusion

The Dresden of today resembles parts of U. S. cities and suburbs because of the space-making tactics developed and applied after the war. Large buildings situated mid-block in a landscape setting are all too typical in the U.S. Formally, one characteristic that is appears in Dresden and not in U.S. suburbs is that the church or school creates a focus for the housing blocks that surround them. This characteristic is a result of communist socialist worker housing planned around areas designated for recreation, work, or education.[64] One last phenomenon that is characteristic to Dresden is an implied connection of the suburbs to the city center through historical landmarks. Vistas to the towers of the *Rathaus* and *Schloss* can be seen from main streets leading into the *Altstadt*. Many of these streets in the periphery survived the initial planning stages during the mid 20th century. When the streets were planned, they were not modified in such a way as to limit these views for generations to come. After the war many of the main routes were left unmodified preserving at least some context for urban planners to envision a Dresden after the turn of the century.[65]

The main question in the minds of German architects resided in both the stylistic and formal realms. Groups such as the *Jugendstil*, *Deutscher Werkbund, Heimatschutz,* and the *Bauhuas,* all initially sought to answer the question in a manner that reflected German thinking and craft, while removing the application of particular historic style. This was a tremendous change in the German that had always been based on a need historicism in a Baroque city like Dresden. As ideas became more concrete, it was apparent that the individuals who had started the groups had deviated apart into a traditional and modernist groups, each with their own agenda. The *Bauhaus* seemed to push ideas to the next level because its involvement with other international architects. The traditionalists approached the period up until World War II with

[64] Arnold Whittick, *Encyclopedia of Urban Planning*, pp. 246,247.
[65] Melville C. Branch, *An Atlas of Rare City Maps: Comparative Urban Design*, 1830-1842, p. 46.

apprehension. They were content to remain where they were as if they had arrived at a style that could replace all others.

The history of this battle between the old and the new is easy to see in the city of Dresden. The bombing erased much of the old urban fabric that was in need of reform.[66] What was a grim tragedy for the people became an opportunity to build modern housing resembling the newest styles by architects in the forefront before the war. The newer rural precedents for living such as Hellerau and the *Siedlungen* in Stuttgart fit comfortably in the country, but once they took root in the core of Dresden they would change the city's urbanism forever. Ernst May, who was chosen by the city assembly under Ludwig Landman to chair a building society in Germany, showed interest in the *Bauhaus* style. As people in the building society wanted more traditionalist buildings other people would argue for more modernist structures.[67] The housing built in Dresden from 1949 to the 1960s showed signs of this struggle. The adoption of traditional architectural and urban ideologies are barely noticeable to the casual observer in the early housing blocks of Dresden. Elements such as the definition of the street, courtyards, entry or passage, and mixed-use remained for a short time. This disappeared rapidly as people embraced the ever popular modern planning principles in search for newer ways of living and working in their cities.

This raises issues as Dresden moves into the next century. Should the planners and urban designers of Dresden take the position that the architecture built is part of its history and that it should be left as a part of remembrance? Or is it all right to remove the architecture that is not meeting the current demands in

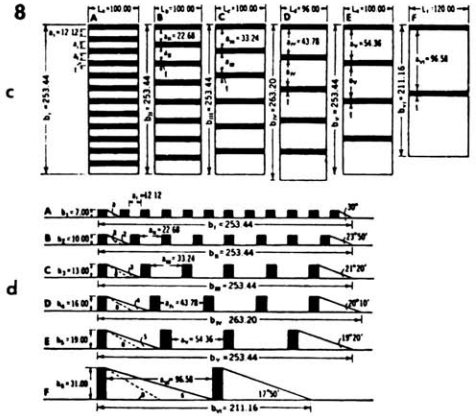

Fig. 2.35 - Diagram by Walter Gropius describing the relationship between density, open space, and shadow lines.

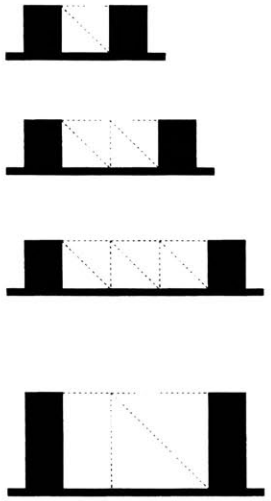

Fig. 2.36 - Diagram representing the relationship between modernist courtyards and building height.

[66] Nicholas Bullock and James Read, *The Movement for Housing Reform in Germany and France 1840-1914*, p. 276.
[67] Barbara Miller Lane, *Architecture and Politics in Germany*, p. 90, 114.

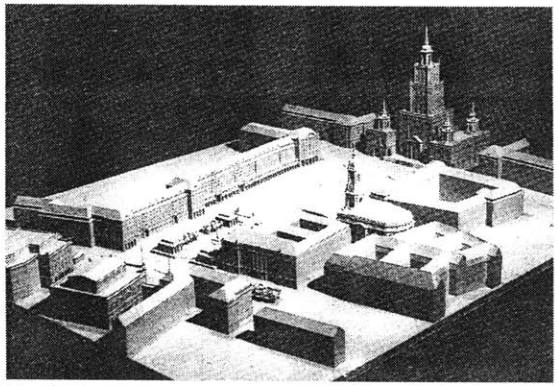

Fig. 2.37 - Herbert Schneider's competition model for a new civic building and the rebuilt Atlmarkt.

apartment size and amenities? A third, highly unlikely and extreme position, would be to demolish all the buildings that were built in this post-war style. The last solution could be a possibility for buildings that lack historical significance, such as the mid or high-rise housing located in Dresden's periphery. The process in Dresden is to recreate the pre World War II fabric to fill in the very dense blocks. Concern over the design of the socialist block housing has been a mixed effort. The officials realize the need to provide more dwellings, but do not have the capital to do large renovations. Many of the housing structures in Dresden have received exterior renovations that include the enclosing balconies and the repainting of the structures. Although the painting is attractive, it does not resolve the density issues that the planners want to resolve. The external renovation is a form ornamentation that belittles the ideals of architecture and urbanism that were deeply rooted in Dresden's history.

These are the questions that Dresden and its planning department have to address in order to move forward. The conflict between traditionalists and modernists of the early 1900s represent an example of two extremes for Dresden's urban planners and architects to study. If the process is not analyzed, it could accelerate uncontrollably as in the case of the modernists. Important and meaningful ideas could be superseded. The modernists while envisioning the new, simplistic, industrialized future veered from their original goals. Could they have pushed the envelope too far? Was it the only direction that they could have traveled? It was obvious to Paul Bonatz when he changed groups in the middle of the 1930s. He

watched Gropius and the 'Ring' group go to far.[68] The other extreme offered by the traditionalists proved just as detrimental. To allow the process to move too slowly would show an acceptance to the way things are and would stagnate any progress.

A solution to the problems facing Dresden is in a median between the extremes of the modernists and the traditionalists. The ideas residing in the early socialist housing are the median. They are also the resolution in densifying the districts containing the six-story block housing in Dresden. This early perimeter block housing represents the opposing sides and demonstrates that modern ideologies can indeed coexist with a traditional method of building. While the courtyards of these dwellings were not as defined as the 19th or 20th century stock, there are clear intentions of what is public and private. The urban ideals and architectural ideals merged at that instance to create a better urban environment. One that better resolves the private intentions and public needs and concerns. Whatever method of reconstruction the officials choose for their city for the next century they will never replicate or replace the period when it was the 'Florence on the Elbe'. They can only move on learning from the mistakes made in this era past in search for Dresden's existence in the future.

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[68] Karen Kirsch, *The Weissenhofsiedlung*, p. 37.

CHAPTER 3

Development of Urban Form

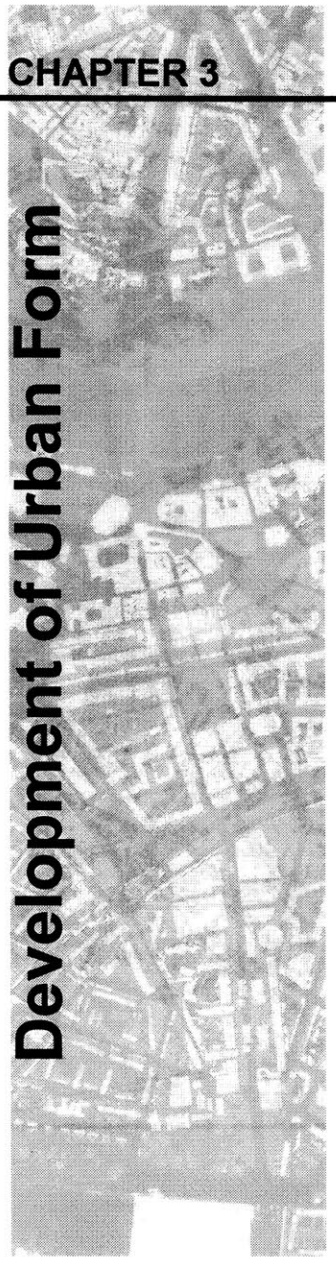

Fig. 3.1 - 1849 Plan of Dresden.

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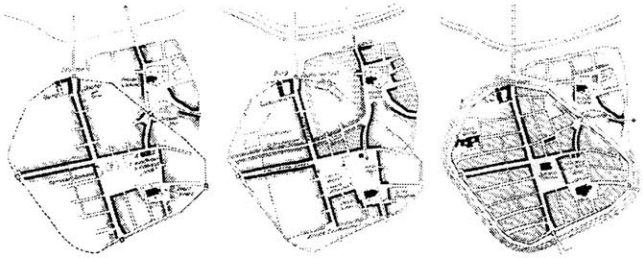

Fig. 3.2 - The incorporation of the *Neuemarkt* into the existing fortifications of the city.

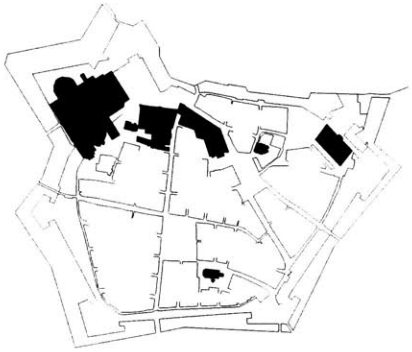

Fig. 3.3 - Diagram showing major institutions in the city and their corresponding spaces.

Fig. 3.4 - Building regulation plan of 1720/1736 (Geyer). It established building widths and heights of the development around the inner core.

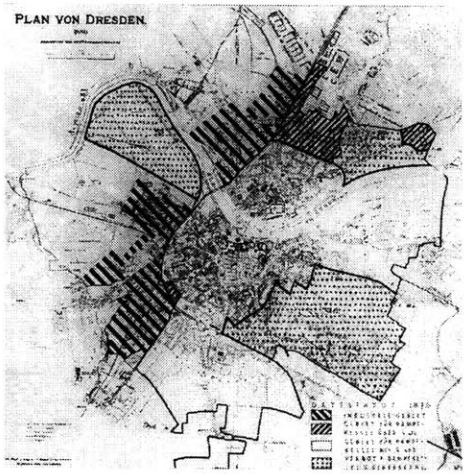

Fig. 3.5 - 1880 plan designating the location of industrial development throughout the city.

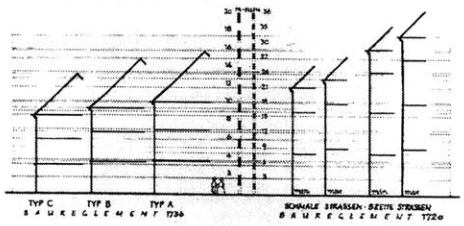

Fig. 3.6 - Building guidelines for the development of the suburbs.

3.1 The Origins of Dresden

- Existence of Dresden dates back to around the twelfth century.[1]
- The *Neustadt* was the original settlement north of the *Elbe* River.
- Important buildings:
  Zwinger (1709-28),
  Katholische Hofkirche (1739-51),
  Residenzschloß (1471-74),
  Johanneum (1586-91),
  Frauenkirche (1726-43),
  Albertinum (1559-63),
  Brühlsche Terrasse (1739),
  Kreuzkirche (1764-92)
- The *Altstadt* was given the status of a town in 1403.
- A bridge connecting the *Altstadt* and *Neustadt* was built in 1287.
- Fortifications removed between 1817-29, by order of Napoleon.
- Primary axis: North-south linking the *Altstadt* and *Neustadt*.

[1] A. E. J. Morris, *History of Urban Form: Before the Industrial Revolution*, p. 234.

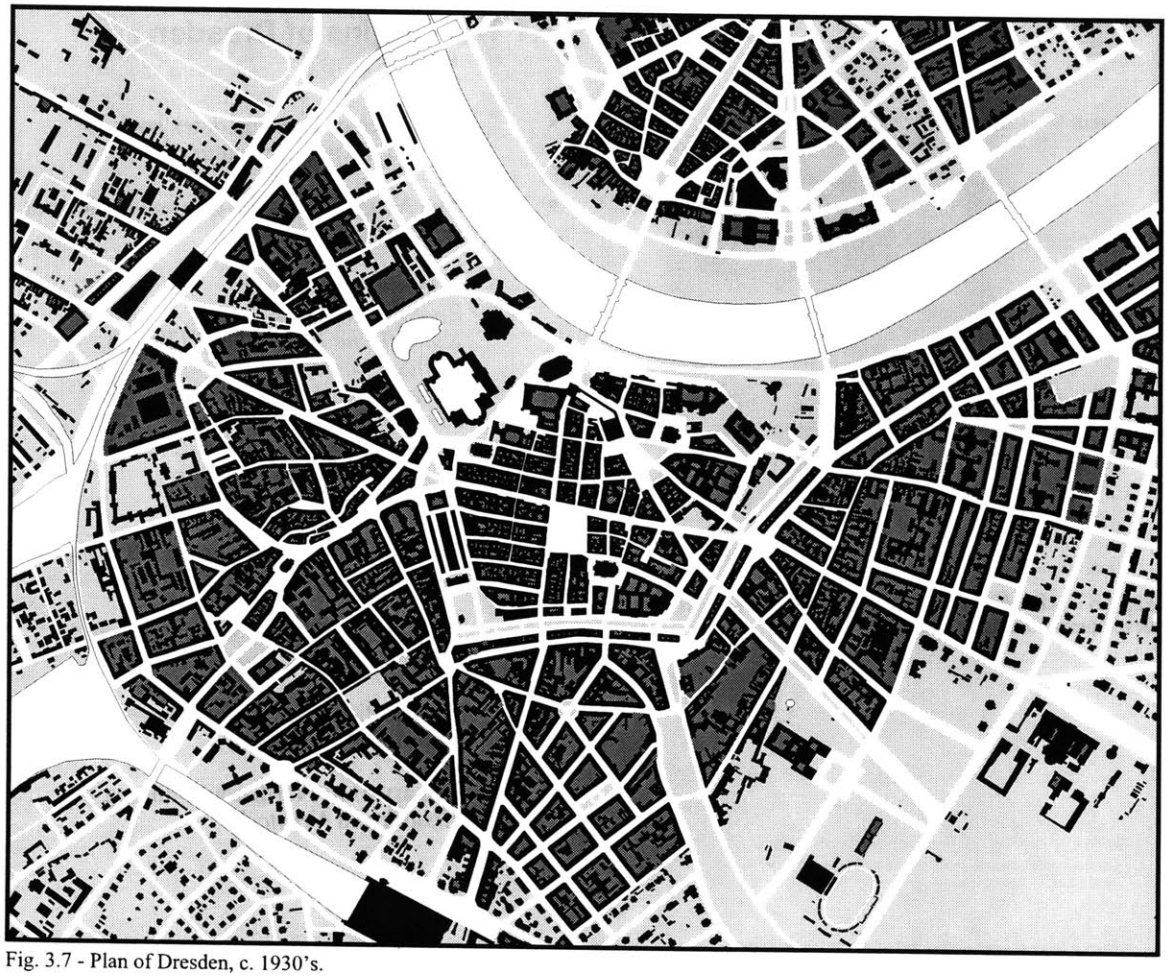

Fig. 3.7 - Plan of Dresden, c. 1930's.

Fig. 3.8 - Image looking west from the *Brühlsche Terrasse*.

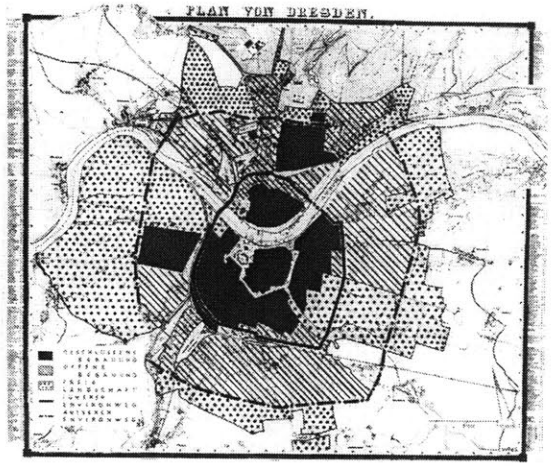

Fig. 3.9 - 1859/1962 plan created by the *Verschonerungskommision* (construction and beautification commision). It designated the areas for open development and proposed the construction of two ring roads around the city.

Fig. 3.10 - Air view overlooking the *Altmarkt* and *Neuemarkt* c. 1930.

Fig. 3.11 - View looking towards the *Residenzschloß*.

3.2 The Pre-World War II City

- Population (1833): 85,000
- The inner core continues to increase in density.[2]
- Plans drafted to specify land-use and development, and particularly for industrial development.
- Railroad stations built:
  Hauptbahnhof (1892-97)
  Bahnhof Neustadt (1898-1901)
  linking Dresden with Prague and Berlin.
- Primary axis is still emphasized.
- Secondary axis: East-west linking the *Pirnaische Vorstadt (Johannstadt)* and the *Wilsdruffer Vorstadt (Seevorstadt West)*.

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[2] Branch, *An Atlas of Rare City Maps: Comparative Urban Design: 1830-1842*, p. 11.

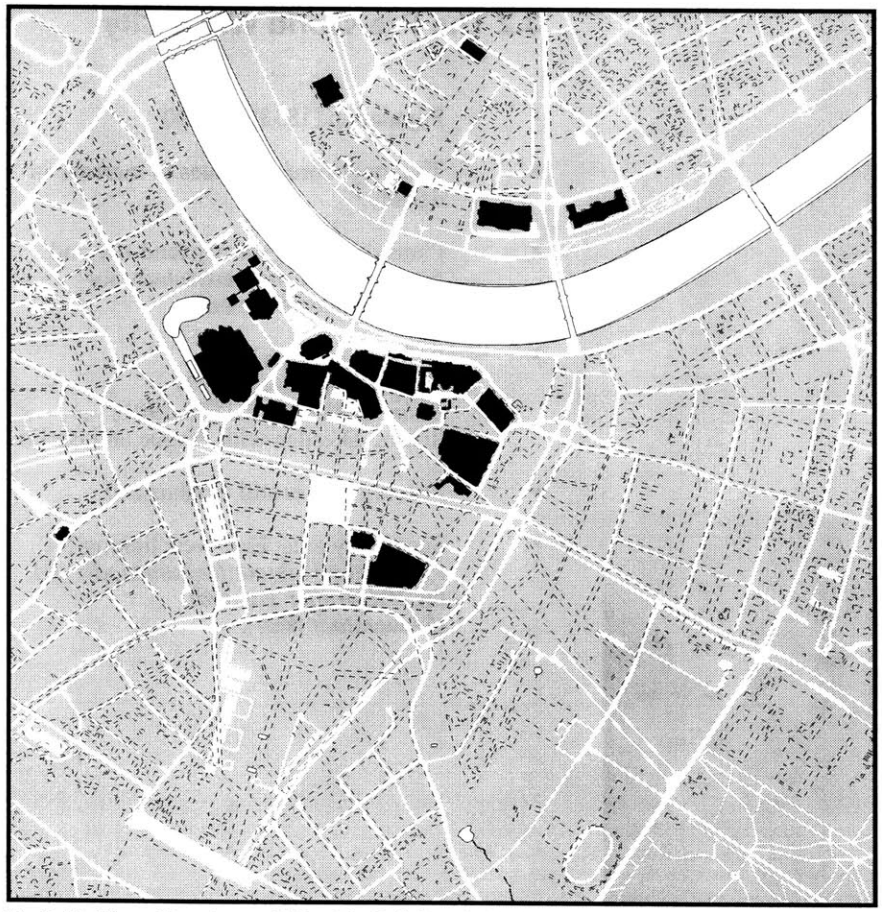


Fig. 3.12 - Plan of Dresden, c. 1950s. The buildings in black were selected to be rebuilt.The dashed lines represent the urban fabric of the city before the bombing. The shaded grey areas represent the street pattern built after the 1950s.

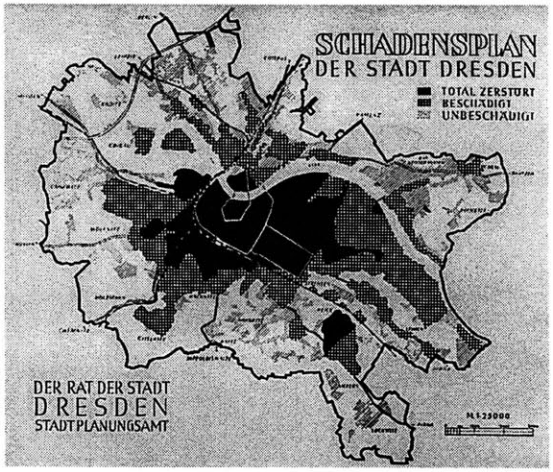


Fig. 3.13 - Map showing the destruction caused by the allied bombing. The black area shows the most destruction leaving the structures unusable.

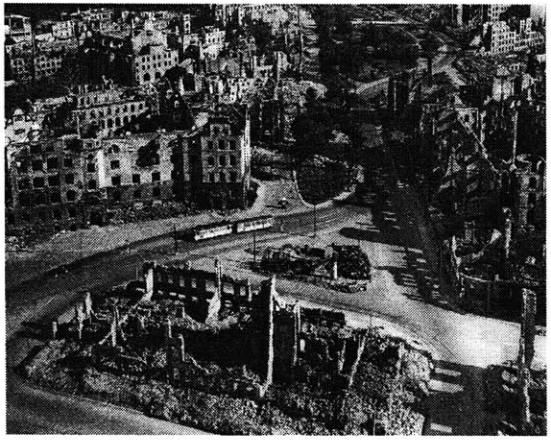


Fig. 3.14 - The inner core was a shell that transportation weaved through as Dresdener's continued their daily life outside the 26th ring.

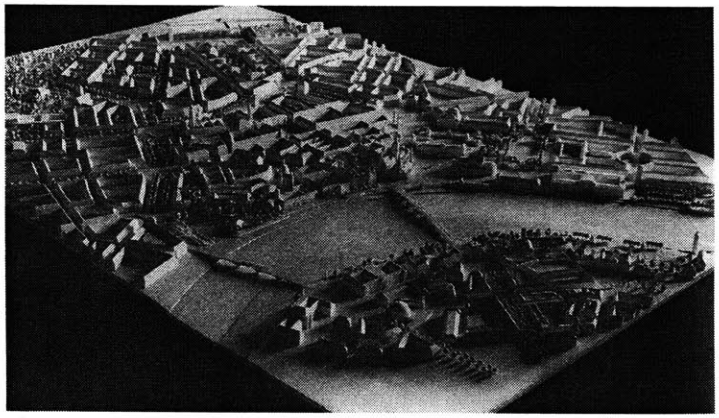


Fig. 3.15 - Proposed model to rebuild the city as it existed before the bombing.

Fig. 3.16 - 1947 plan by H. Hopp demonstrating the rebuilding of the city based on the CIAM model.

3.3 The Post-World War II City

- Dwellings Destroyed:
  75,000 totally destroyed
  200,000 heavily damaged
- 85% of the city was destroyed (15 sq mi)[3]
- Choice between modern architecture or an architecture that reflects the past.
- The only activity in the city is due to the cleanup efforts and trams traversing through the inner core to other parts of Dresden.

[3]Arnold Whittick, *Encyclopedia of Urban Planning*, p. 450.

Fig. 3.17 - Plan of Dresden, c. 1989.

3.4 The Socialist City

- Population (1974): 505,188[4]
- Socialist planning of large housing structures with green communal space for the residents.
- New housing is considered an improvement over conditions before the war.
- Formally the main spaces remained intact, except for the main east/west axis which is widened. The large spaces are preferred for two main reasons, the deployment of troops, and the surveillance of people.

Fig. 3.18 - Planning model of Dresden in 1959, including a competition entry for a high-rise structure to the north of the *Altmarkt*.

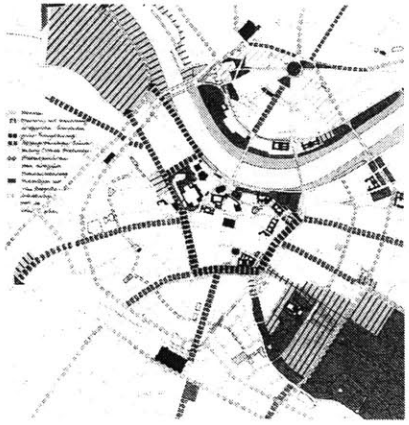


Fig. 3.19 - Diagram showing the emphasis of vehicular circulation routes from the inner core to the periphery.

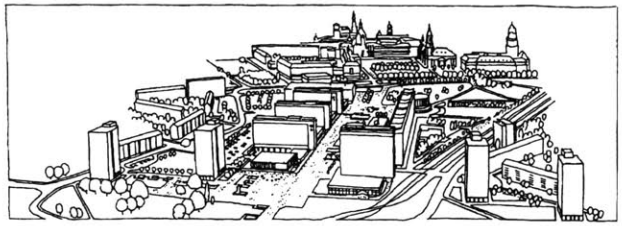


Fig. 3.20 - Perspective view of the *Pragerstraße*. It was, and still is, Dresden's main area for shopping. Formally it provides a link from the *Hauptbahnhof* to the inner core.

[4]Arnold Whittick, *Encyclopedia of Urban Planning*, p. 447

Fig. 3.21 - Plan of Dresden, c. 1990.

3.5 The Post 1989 Wende City

- Population (1990): 493,200[5]
- Collapse of the communist system and the adoption of the capitalist free market system.
- Period of reflection and evaluation of all the aspects of the city and its life.
- The planning department makes an assessment on the condition of the city and how to work it into the new government system.

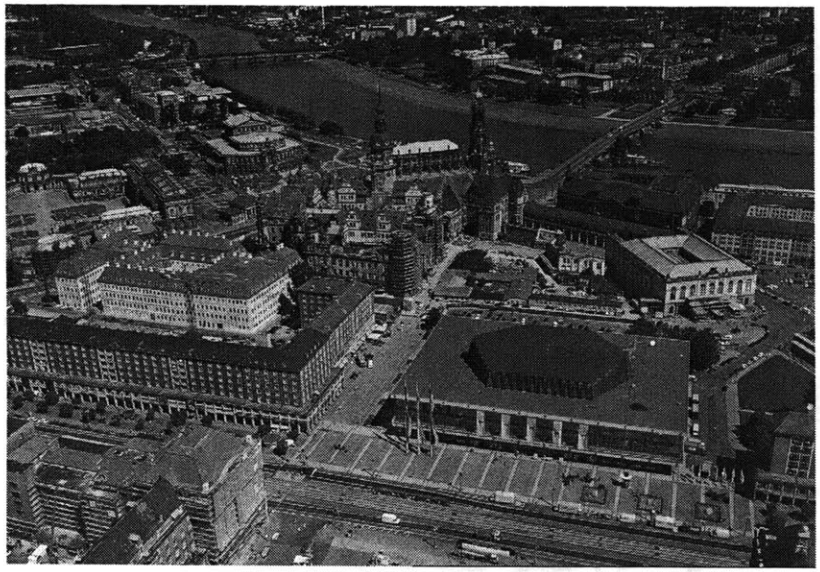


Fig. 3.22 - Air view of the restored historic structures as well as new modern types fronting *Wilsdruffer* Street. This is the main east to west street through the city. Note the *Kulturepalast* building in the right hand corner.

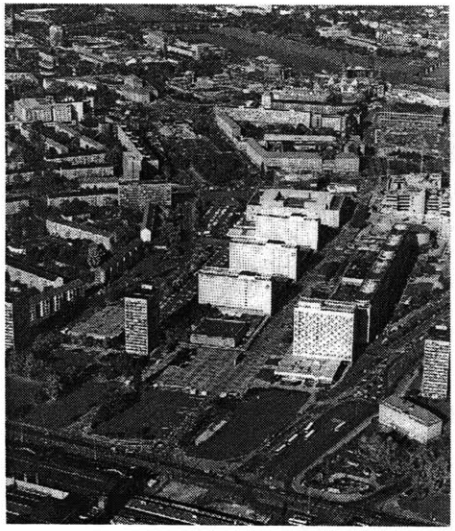


Fig. 3.23 - Air view of the *Prager* Street. This shopping street is the main north south axis through the city linking the trainstation to the *Neustadt*.

5 "Dresden". *Microsoft Encarta Encylopedia 99.*

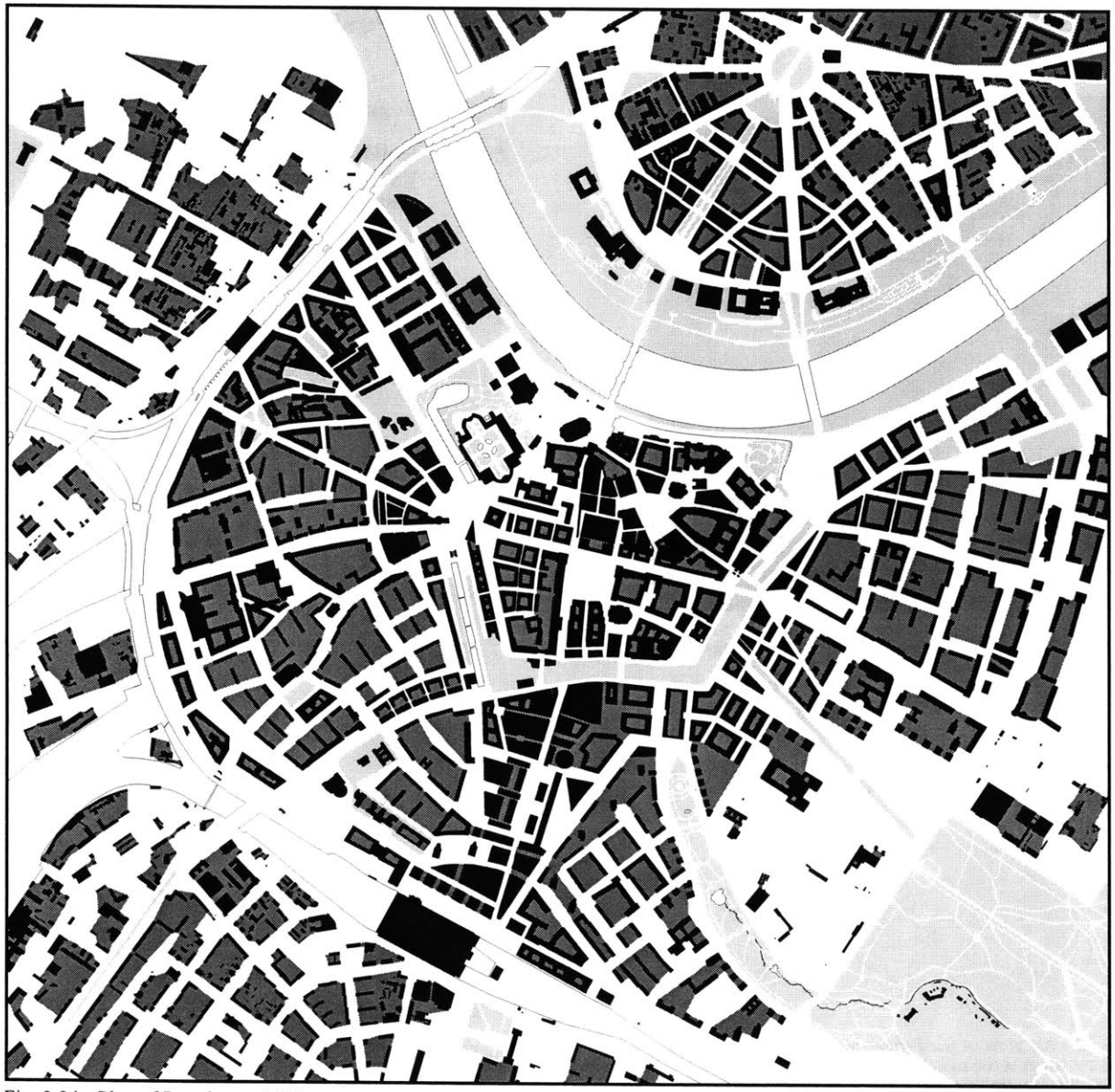


Fig. 3.24 - Plan of Dresden, c. 1998.

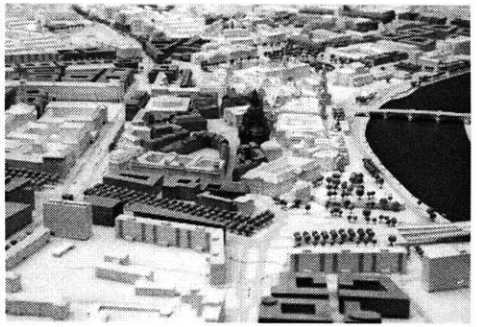


Fig. 3.25 - The model built by the planning department with the proposed buildings in brown. This view shows the filling of the St. Petersburg Street and the area around the *Neuemarkt*.

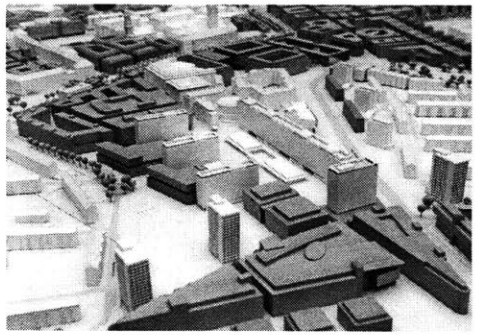


Fig. 3.26 - This view shows the proposed development around the end of the *Pragerstraße* at the *Hauptbahnhof*.

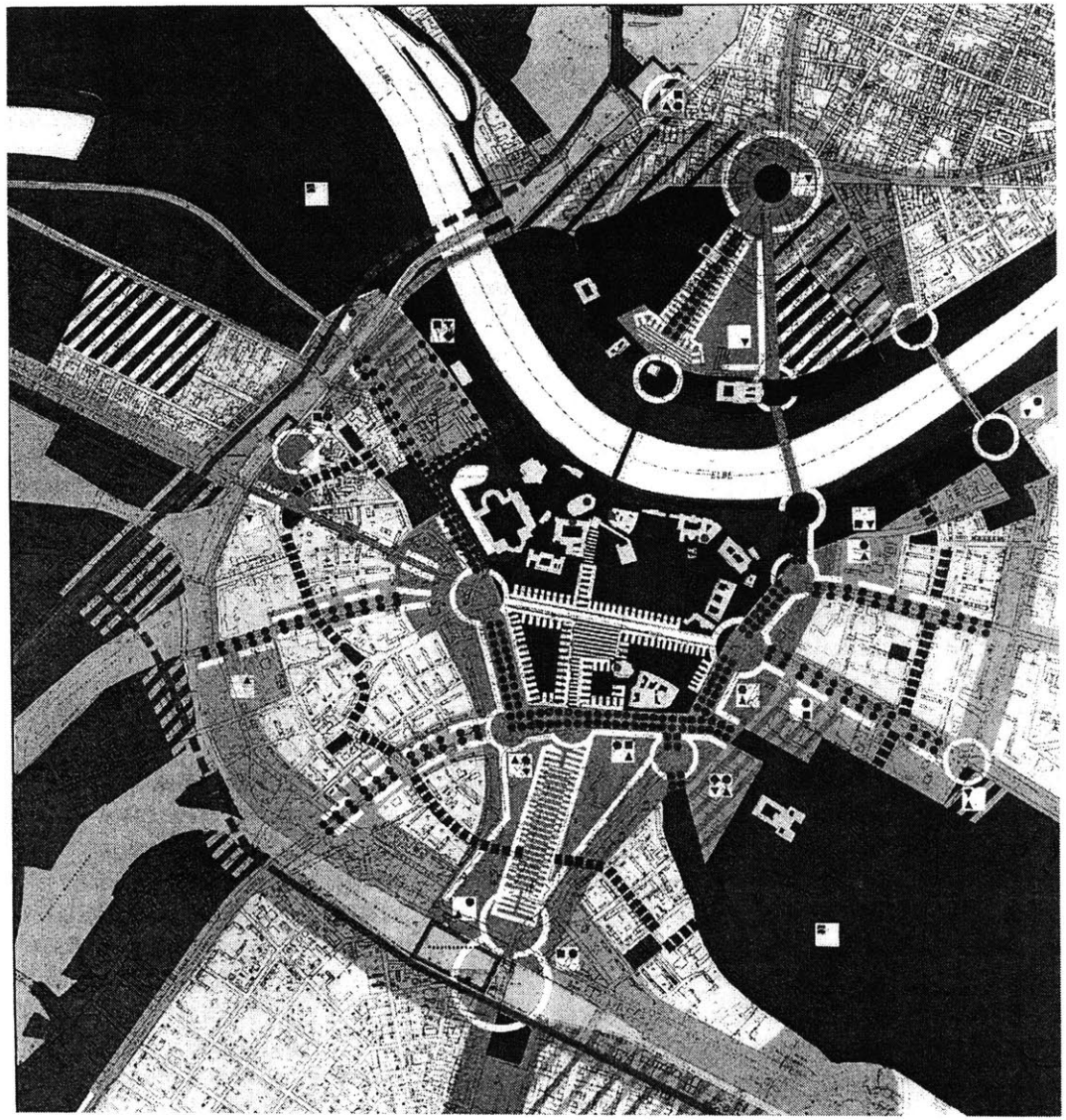
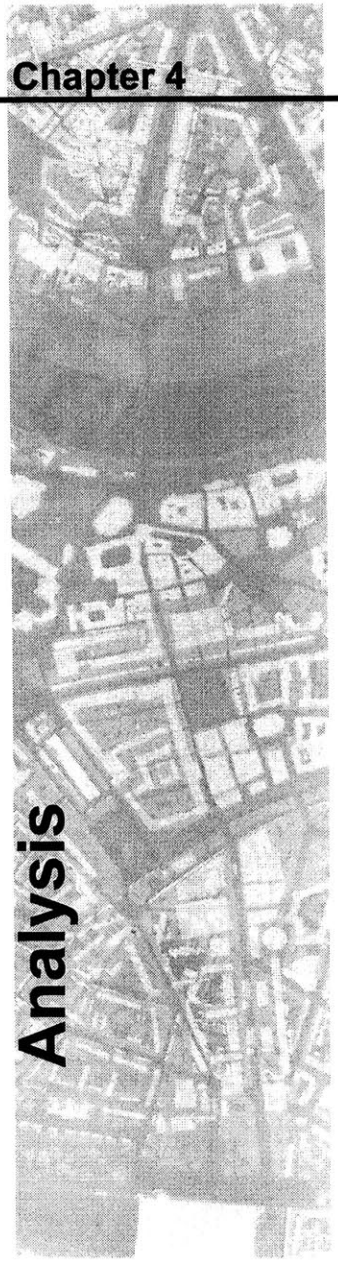


Fig. 3.27 - Urban Structure plan drafted by the Dresden Planning Department in July 1993.

3.6 The 21st Century City

- Densification within the blocks intern provides more housing units within the 26th ring.
- Redefining street edge, distinguish between public and private.
- Creating primary corridors of movement through the city, where appropriate and limiting others where they are no longer needed.
- Creation of central business districts in various areas of the city as methods to nurture new development.
- Public and private corporations are encouraged at the local level to provide costly infrastructure and public amenities that the government could not normally provide.
- The promotion of well known architects to build projects in the city that can increase the growing tourism industry.

Chapter 4



Analysis

Fig. 4.1 - Physical form of Dresden in 1998 showing the three distinct housing quarters.

Fig. 4.2 - 1992 isometric dwg by Prof. Dr. Wagner, TU Dresden.

4.1 The Urban Quarters

The most facinating aspect of Dresden is that, even though its destruction during World War II, the districts still exist. The three that were considered for this thesis are within walking distance of the inner core. Early on in this thesis there was a need to determine the best site to redevelop. Each three had their merits, but overall the Seevorstadt West district showed the most need for reconfiguration. Since the Dresden Planning Department had spent a fair amount of time on the main spaces and routes of the masterplan, I chose to take a closer look at infill at the district level.

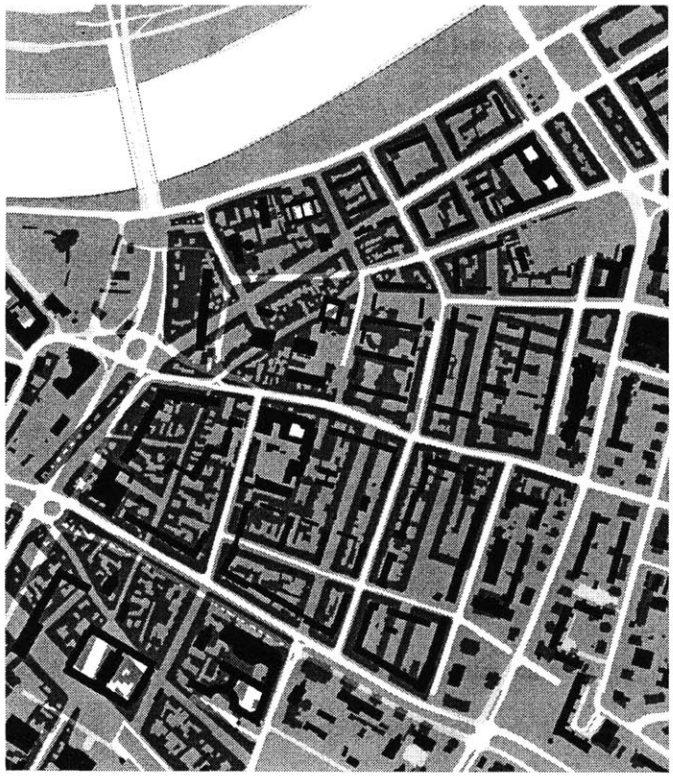


Fig. 4.3 - Composite figure ground plan of the Johannstadt district. The darker elements show the current city form, while the lighter elements show the city of the 1930s.

Fig. 4.4 - View looking east on Grunaer Street. These perimeter structures, which align with the street, are common in this quarter.

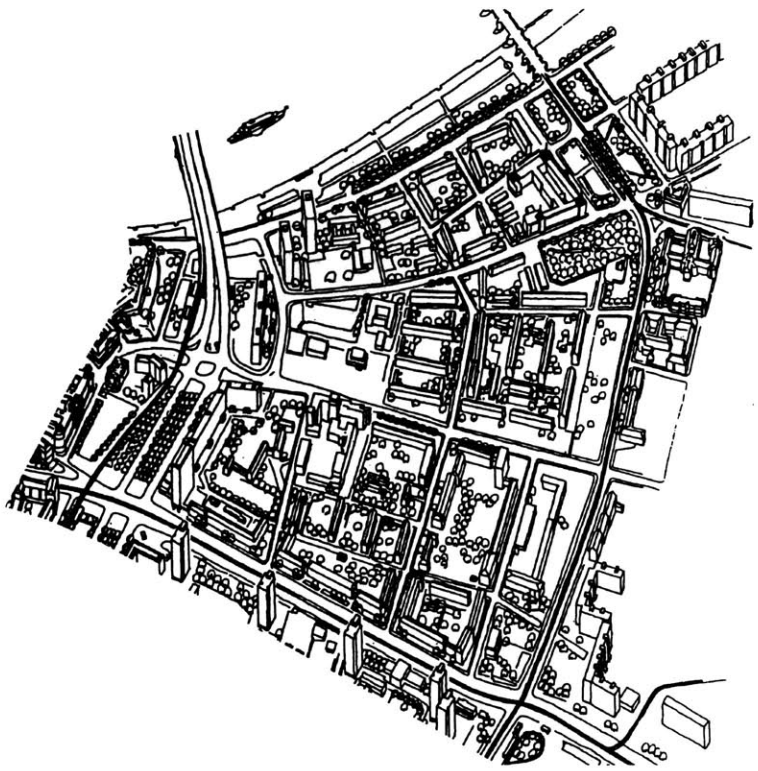


Fig. 4.5 - Isometric drawing of the Johannstadt district.

4.1.1 Johannstadt

This housing quarter is located to the west of the inner core. About 30% of the housing structures were built around the 1950s. While the blocks are very large containing large undefined open space, there remains a street pattern that is identifiable. This is partly due to the organization of the main streets leading back into the core (*Pillnitzerstraße, and Grunaerstraße*). Lacking in this quarter is a distinct center, although there are two retail structures along the *Pillnitzerstraße* that attract residents. The housing structures themselves, in most cases, remain orthogonal to the streets. This aids in any reconfiguration effort of the existing fabric. Also, about 60% have already be renovated on the exterior through the addition of new balconies, entrances, and a new coat of paint.

Fig. 4.6 - Composite figure ground plan of the Seevorstadt East district. The darker elements show the current city form, while the lighter elements show the city of the 1930s.

Fig. 4.7 - View looking south on *Lütichaustraße*. The siting of these are typical of the district.

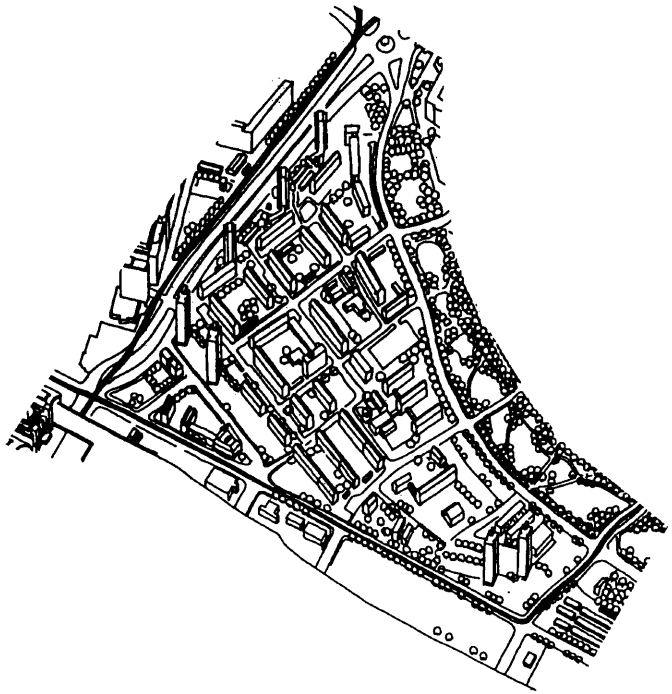


Fig. 4.8 - Isometric drawing of the Seevorstadt East district.

4.1.2 Seevorstadt East

The Seevorstadt East quarter, located in the southeast is the smallest and contains the most orthogonal relationship between the structures and the streets. It's small is due to the constricting highway on the west and the picturesque pathway along the Grosse Garden. Unlike the Johannstadt, it has a center and marketplace that service the quarter. Retail has begun to fill in near this center, which will strengthen the CBD. All of the houses have been renovated and new modifications beyond the addition of balconies have appeared in the form of building out past the exterior wall and the reconfiguration of the existing pitched roofs.

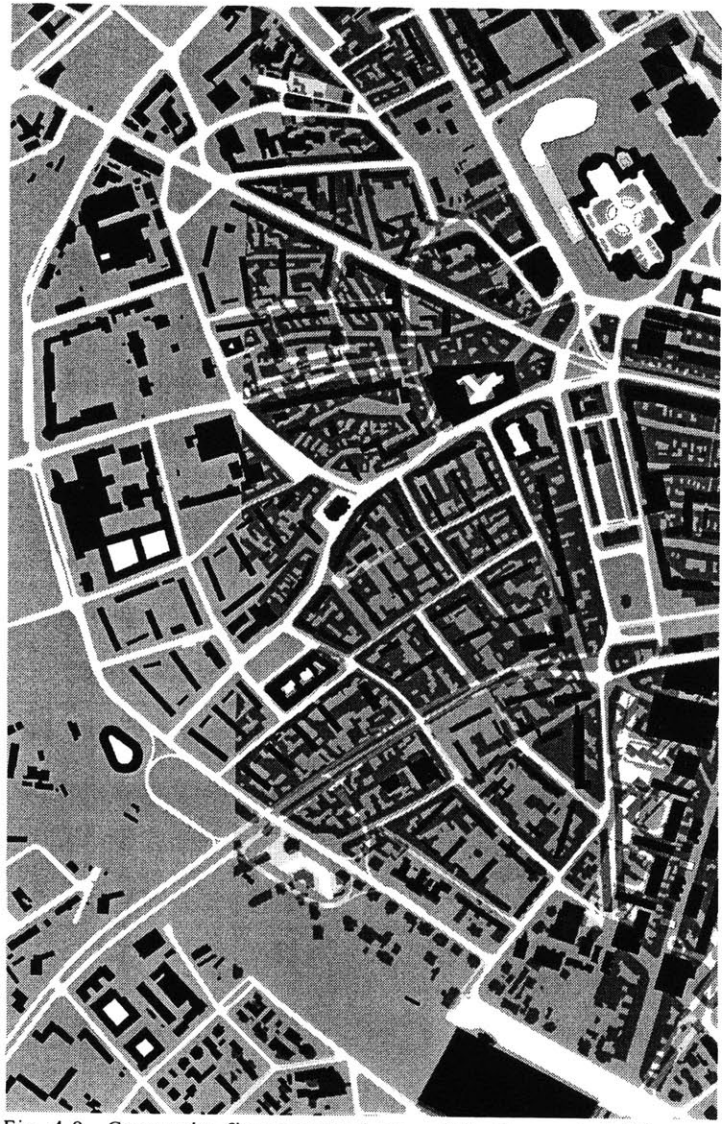


Fig. 4.9 - Composite figure ground plan of the Seevorstadt West district. The darker elements show the current city form, while the lighter elements show the city of the 1930s.

Fig. 4.10 - View looking west near the corner of *H. Lindnerstraße and Schwerinerstraße.* The housing structures of this district are generally located mid-block detached from the street.

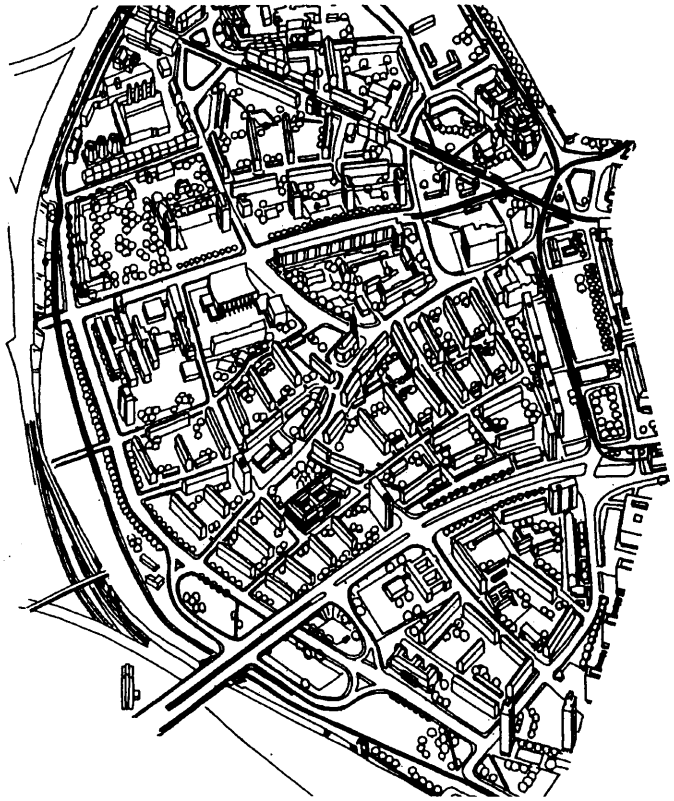


Fig. 4.11 - Isometric drawing of the Seevorstadt West district.

4.1.3 Seevorstadt West

The third housing quarter lies in the southwestern area of the city. There were three characteristics that made this quarter the focus of this thesis. The first was the segmentation of the quarter into three areas caused by two main thoroughfares into the core of the city. The second was the variation in building types and commercial uses. The variations were at extremes and exacerbated the large amounts of open space that flows between the buildings. The last characteristic, and most problematic, is the unrelated block sizes and fragmented street pattern. The streets were planned to get people and vehicles into the blocks, but would not continue through, essentially resulting in a similar form to the American "cul de sac". The housing structures often skewed ever so slightly from the street leaving a disoriented public street space. With these three major flaws this quarter did have the most distinct center due to the *Annekirche* located directly in the middle. This was probably the strongest characteristic in the Seevorstadt West quarter.

4.2 Block Typologies

4.2.1 Pre-World War II Block Types

Block A

PUBLIC / PRIVATE:	Length	Width	Sq Ft	Percentage
Total Area (TA)	100	150	138,097	100%
Private Area (PA)	70	120	106,946	77%
Public Area (PB)			31,150	23%
GROSS COVERAGE:				
Total Area (TA)	100	150	138,097	100%
Building Coverage (BC)			95,379	69%
Public Area (PB)			31,150	23%
Private Open Space (PBO)			11,568	8%
NET COVERAGE:				
Private Area (PA)	70	120	106,946	100%
Building Coverage (BC)			95,379	89%
Private Open Space (PBO)			11,567	11%
GROSS FAR:				
Total Area (TA)			138,097	
Building Volume (BC x Floor #)			476,895	
Gross FAR (BA/TA)			3.45	GFAR
Number of Floors 5				
NET FAR:				
Private Area (PA)			106,946	
Building Area (BA)			476,895	
Net FAR (PA/BA)			4.46	NFAR

STREET WIDTHS			
20'	10'	20'	30'

PARCEL SIZES			
MIN	30'	x	60'
MAX	50'	x	80'

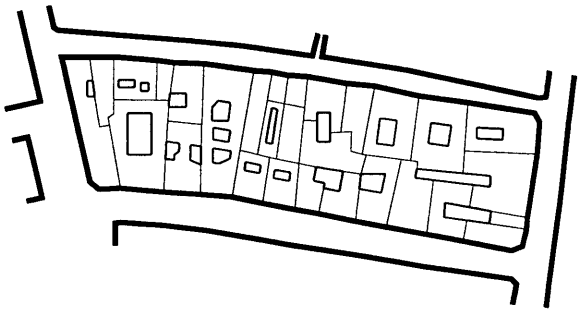


Fig. 4.12 - Pre-World War II Block. This block, located in the core, contains mostly courtyard buildings.

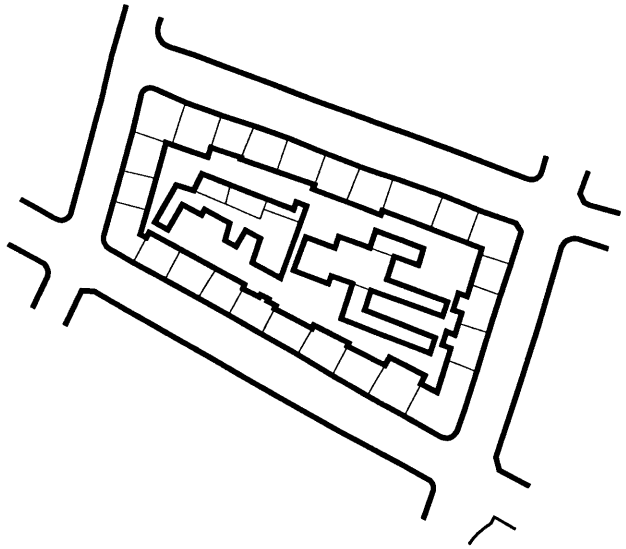


Fig. 4.13 - Pre-World War II Block. This block, located in the Sevorstadt West, contains mostly apartment type structures.

Block B

PUBLIC / PRIVATE:	Length	Width	Sq Ft	Percentage
Total Area (TA)	100	150	186,737	100%
Private Area (PA)	70	120	135,292	72%
Public Area (PB)			51,445	28%
GROSS COVERAGE:				
Total Area (TA)	100	150	186,737	100%
Building Coverage (BC)			111,873	60%
Public Area (PB)			51,445	28%
Private Open Space (PBO)			23,419	13%
NET COVERAGE:				
Private Area (PA)	70	120	135,292	100%
Building Coverage (BC)			111,873	83%
Private Open Space (PBO)			23,419	17%
GROSS FAR:				
Total Area (TA)			186,737	
Building Volume (BC x Floor #)			559,365	
Gross FAR (BA/TA)			3.00	GFAR
Number of Floors	5			
NET FAR:				
Private Area (PA)			135,292	
Building Area (BA)			559,365	
Net FAR (PA/BA)			4.13	NFAR

STREET WIDTHS			
60'	60'	60'	50'

PARCEL SIZES			
MIN	42'	X	37'
MAX	69'	X	58'

Block C

PUBLIC / PRIVATE:	Length	Width	Sq Ft	Percentage
Total Area (TA)	100	150	189,558	100%
Private Area (PA)	70	120	160,239	85%
Public Area (PB)			29,319	15%
GROSS COVERAGE:				
Total Area (TA)	100	150	186,737	100%
Building Coverage (BC)			122,735	66%
Public Area (PB)			29,319	16%
Private Open Space (PBO)			34,683	19%
NET COVERAGE:				
Private Area (PA)	70	120	160,239	100%
Building Coverage (BC)			122,735	77%
Private Open Space (PBO)			37,504	23%
GROSS FAR:				
Total Area (TA)			189,558	
Building Volume (BC x Floor #)			613,675	
Gross FAR (BA/TA)			3.24	GFAR
Number of Floors	5			
NET FAR:				
Private Area (PA)			160,239	
Building Area (BA)			613,675	
Net FAR (PA/BA)			3.83	NFAR

STREET WIDTHS			
32'	25'	50'	28'

PARCEL SIZES			
MIN	39'	X	60'
MAX	83'	X	112'

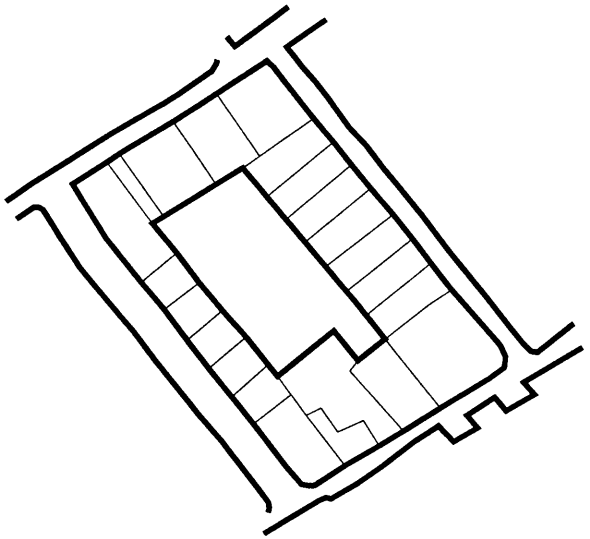


Fig. 4.14 - Pre-World War II Block. This block, located in the Sevorstadt West district, contains a mix of apartment and courtyard structures.

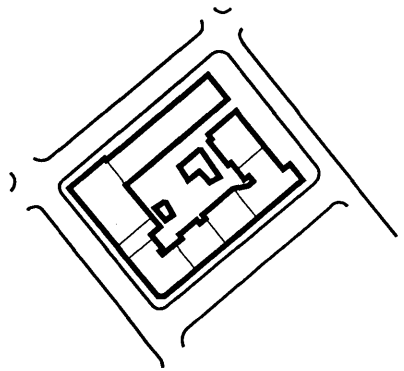


Fig. 4.15 - Pre-World War II Block. This block, located in the Neustadt, contains mainly apartment structures.

Block D

PUBLIC / PRIVATE:	Length	Width	Sq Ft	Percentage
Total Area (TA)	100	150	79,575	100%
Private Area (PA)	70	120	45,989	58%
Public Area (PB)			33,587	42%
GROSS COVERAGE:				
Total Area (TA)	100	150	79,575	100%
Building Coverage (BC)			32,123	40%
Public Area (PB)			33,587	42%
Private Open Space (PBO)			13,865	17%
NET COVERAGE:				
Private Area (PA)	70	120	45,989	100%
Building Coverage (BC)			32,123	70%
Private Open Space (PBO)			13,866	30%
GROSS FAR:				
Total Area (TA)			79,575	
Building Volume (BC x Floor #)			160,615	
Gross FAR (BA/TA)			2.02	GFAR
Number of Floors 5				
NET FAR:				
Private Area (PA)			45,989	
Building Area (BA)			160,615	
Net FAR (PA/BA)			3.49	NFAR

STREET WIDTHS			
32'	25'	39'	35'

PARCEL SIZES			
MIN	22'	X	41'
MAX	58'	X	60'

Block E

PUBLIC / PRIVATE:	Length	Width	Sq Ft	Percentage
Total Area (TA)	100	150	477,510	100%
Private Area (PA)	70	120	318,109	67%
Public Area (PB)			159,401	33%
GROSS COVERAGE:				
Total Area (TA)	100	150	477,510	100%
Building Coverage (BC)			72,053	15%
Public Area (PB)			159,401	33%
Private Open Space (PBO)			246,056	52%
NET COVERAGE:				
Private Area (PA)	70	120	318,109	100%
Building Coverage (BC)			72,053	23%
Private Open Space (PBO)			246,056	77%
GROSS FAR:				
Total Area (TA)			477,510	
Building Volume (BC x Floor #)			360,266	
Gross FAR (BA/TA)			0.75	GFAR
Number of Floors 5				
NET FAR:				
Private Area (PA)			318,109	
Building Area (BA)			360,266	
Net FAR (PA/BA)			1.13	NFAR

STREET WIDTHS			
63'	60'	71'	60'

PARCEL SIZES			
MIN	56'	X	36'
MAX	79'	X	70'

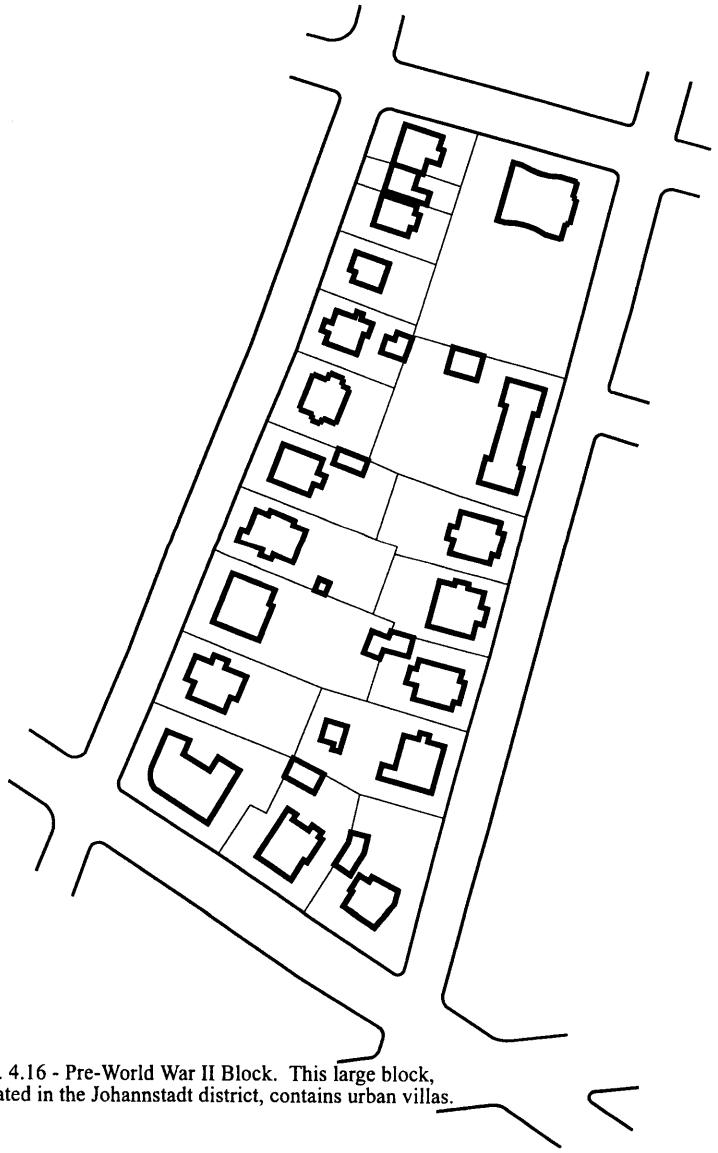


Fig. 4.16 - Pre-World War II Block. This large block, located in the Johannstadt district, contains urban villas.

4.2.2 Post-World War II Block Types

Block F

PUBLIC / PRIVATE:	Length	Width	Sq Ft	Percentage
Total Area (TA)	100	150	740,156	100%
Private Area (PA)	70	120	413,609	56%
Public Area (PB)			326,546	44%
GROSS COVERAGE:				
Total Area (TA)	100	150	740,156	100%
Building Coverage (BC)			115,751	16%
Public Area (PB)			326,546	44%
Private Open Space (PBO)			297,859	40%
NET COVERAGE:				
Private Area (PA)	70	120	413,609	100%
Building Coverage (BC)			115,751	28%
Private Open Space (PBO)			297,859	72%
GROSS FAR:				
Total Area (TA)			740,156	
Building Volume (BC x Floor #)			578,753	
Gross FAR (BA/TA)			0.78	GFAR
Number of Floors 5				
NET FAR:				
Private Area (PA)			413,609	
Building Area (BA)			578,753	
Net FAR (PA/BA)			1.40	NFAR

STREET WIDTHS			
106'	28'	94'	184'

PARCEL SIZES			
MIN	60'	X	32'
MAX	65'	X	37'

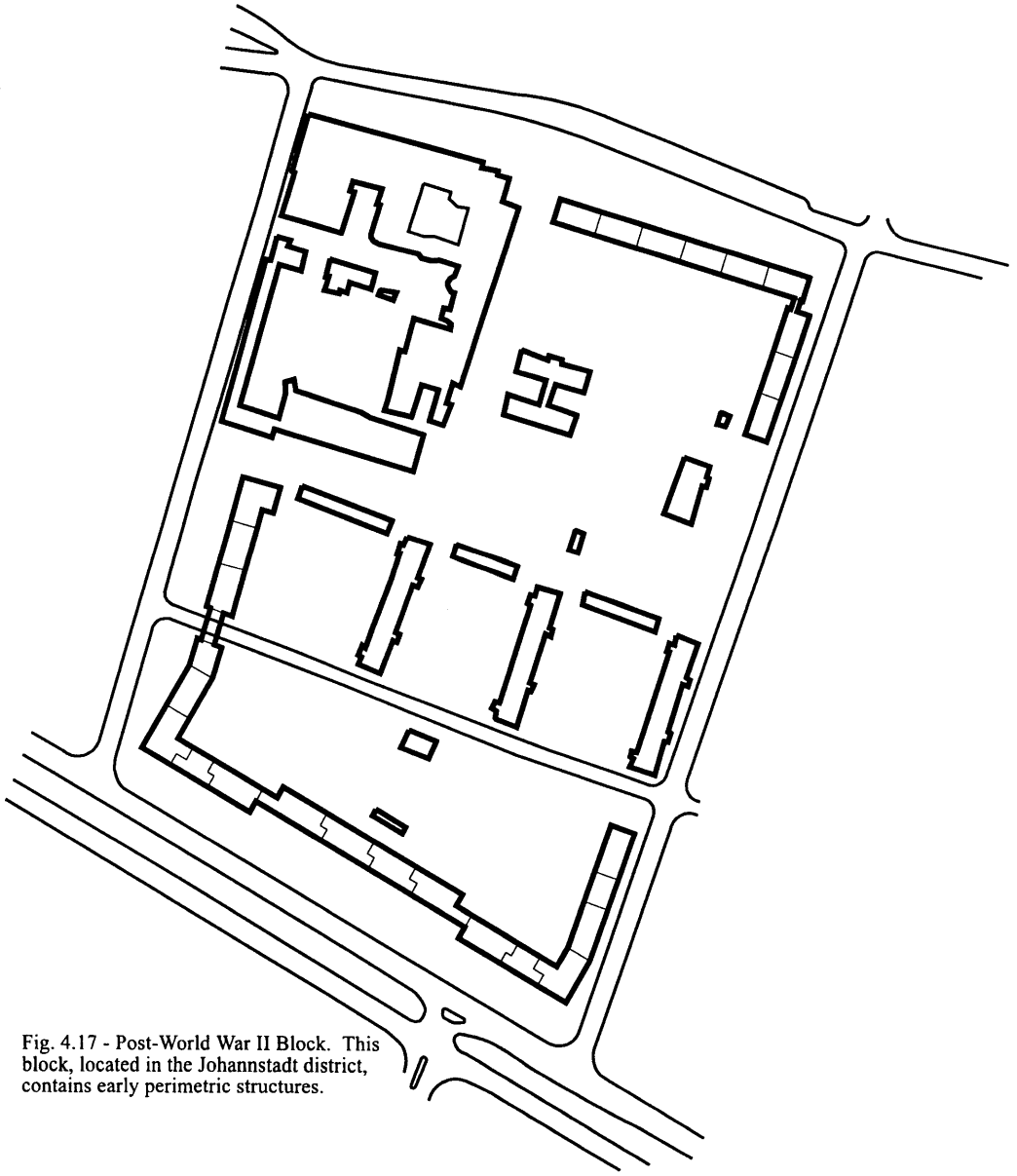


Fig. 4.17 - Post-World War II Block. This block, located in the Johannstadt district, contains early perimetric structures.

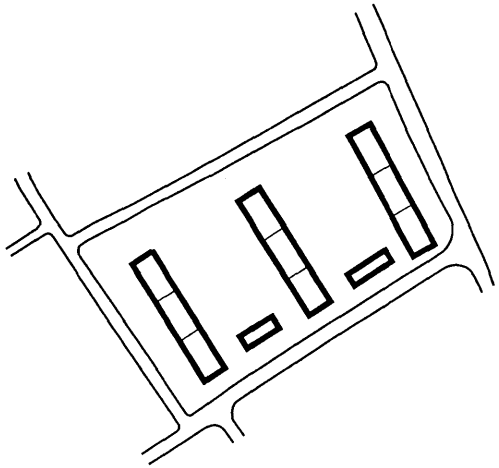


Fig. 4.18 - Post-World War II Block. This block, located in the Seevorstadt district, contains individual socialist housing structures on a small lost compared to Block F.

Block G

PUBLIC / PRIVATE:	Length	Width	Sq Ft	Percentage
Total Area (TA)	100	150	123,577	100%
Private Area (PA)	70	120	64,513	52%
Public Area (PB)			59,065	48%
GROSS COVERAGE:				
Total Area (TA)	100	150	123,577	100%
Building Coverage (BC)			19,461	16%
Public Area (PB)			59,065	48%
Private Open Space (PBO)			45,051	36%
NET COVERAGE:				
Private Area (PA)	70	120	64,513	100%
Building Coverage (BC)			19,461	30%
Private Open Space (PBO)			45,051	70%
GROSS FAR:				
Total Area (TA)			123,577	
Building Volume (BC x Floor #)			97,306	
Gross FAR (BA/TA)			0.79	GFAR
Number of Floors 5				
NET FAR:				
Private Area (PA)			64,513	
Building Area (BA)			97,306	
Net FAR (PA/BA)			1.51	NFAR

STREET WIDTHS			
16'	25'	20'	16'

PARCEL SIZES			
MAX	32'	X	60'

Block H

PUBLIC / PRIVATE:	Length	Width	Sq Ft	Percentage
Total Area (TA)	100	150	443,417	100%
Private Area (PA)	70	120	239,213	54%
Public Area (PB)			204,204	46%
GROSS COVERAGE:				
Total Area (TA)	100	150	443,417	100%
Building Coverage (BC)			68,446	15%
Public Area (PB)			239,213	54%
Private Open Space (PBO)			204,204	46%
NET COVERAGE:				
Private Area (PA)	70	120	239,213	100%
Building Coverage (BC)			68,446	29%
Private Open Space (PBO)			170,767	71%
GROSS FAR:				
Total Area (TA)			443,417	
Building Volume (BC x Floor #)			513,343	
Gross FAR (BA/TA)			1.16	GFAR
Number of Floors 7.5				
NET FAR:				
Private Area (PA)			239,213	
Building Area (BA)			513,343	
Net FAR (PA/BA)			2.15	NFAR

STREET WIDTHS			
40'	20'	90'	30'

PARCEL SIZES			
MAX	32'	X	60'

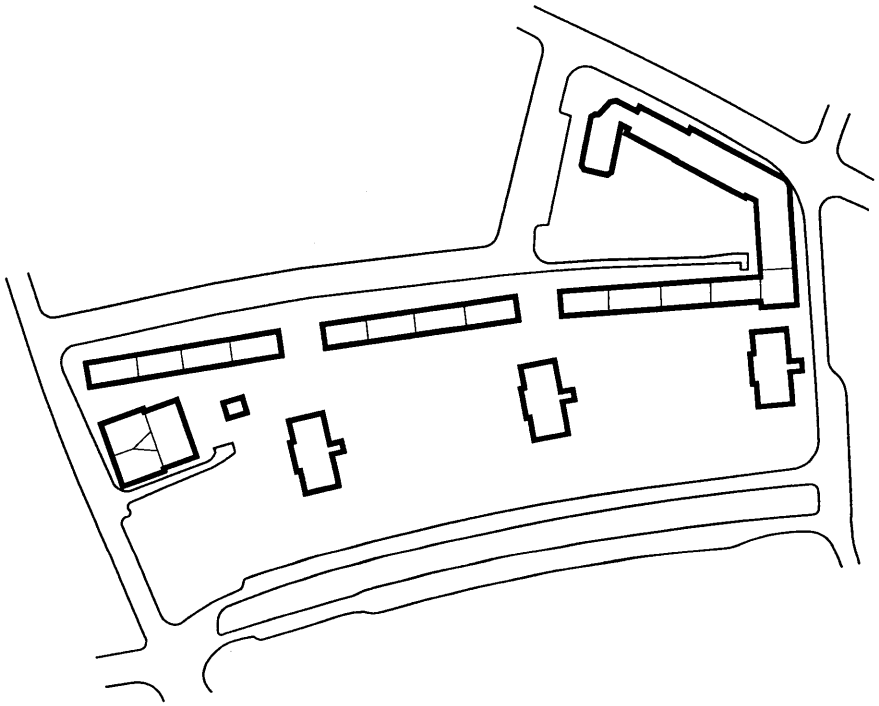


Fig. 4.19 - Post-World War II Block. This block, located in the Seevorstadt district, contains three buildings types: tower, plattenbau, and party wall structures.

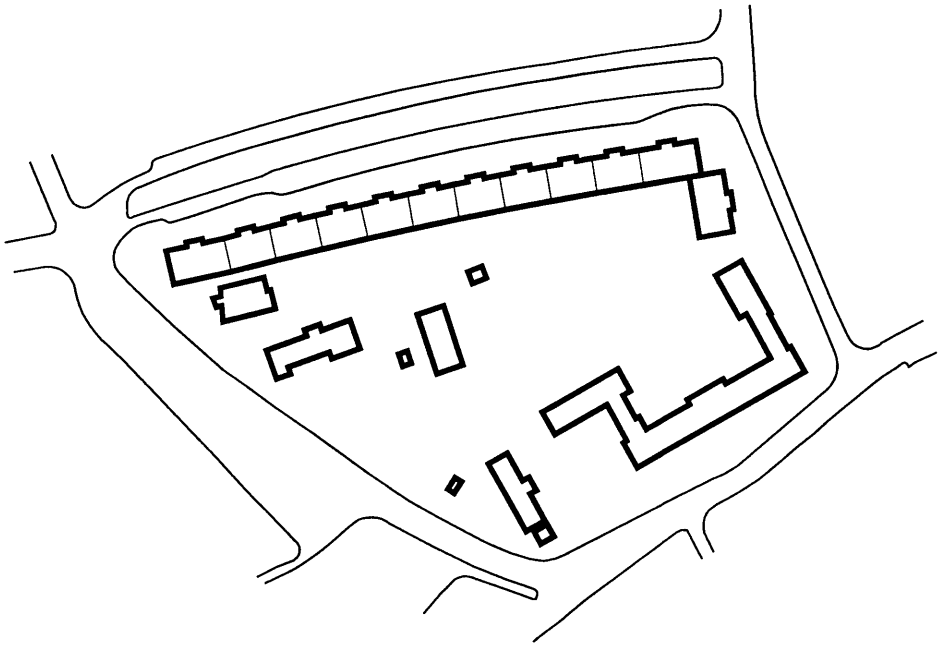


Fig. 4.20 - Post-World War II Block. This block, located in the Seevorstadt West district, contains plattenbau housing on the north and institutions on the rest of the block.

Block I

PUBLIC / PRIVATE:	Length	Width	Sq Ft	Percentage
Total Area (TA)	100	150	436,939	100%
Private Area (PA)	70	120	258,511	59%
Public Area (PB)			178,428	41%
GROSS COVERAGE:				
Total Area (TA)	100	150	436,939	100%
Building Coverage (BC)			71,835	16%
Public Area (PB)			178,428	41%
Private Open Space (PBO)			186,676	43%
NET COVERAGE:				
Private Area (PA)	70	120	258,511	100%
Building Coverage (BC)			71,835	28%
Private Open Space (PBO)			186,676	72%
GROSS FAR:				
Total Area (TA)			123,577	
Building Volume (BC x Floor #)			359,176	
Gross FAR (BA/TA)			2.91	GFAR
Number of Floors 5				
NET FAR:				
Private Area (PA)			258,511	
Building Area (BA)			359,176	
Net FAR (PA/BA)			1.39	NFAR

STREET WIDTHS			
90'	24'	32'	78'

PARCEL SIZES			
MAX	62'	X	45'

Block J

PUBLIC / PRIVATE:	Length	Width	Sq Ft	Percentage
Total Area (TA)	100	150	436,753	100%
Private Area (PA)	70	120	311,107	71%
Public Area (PB)			125,646	29%
GROSS COVERAGE:				
Total Area (TA)	100	150	436,753	100%
Building Coverage (BC)			91,586	21%
Public Area (PB)			125,646	29%
Private Open Space (PBO)			219,521	50%
NET COVERAGE:				
Private Area (PA)	70	120	311,107	100%
Building Coverage (BC)			91,586	29%
Private Open Space (PBO)			219,521	71%
GROSS FAR:				
Total Area (TA)			436,753	
Building Volume (BC x Floor #)			457,931	
Gross FAR (BA/TA)			1.05	GFAR
Number of Floors 5				
NET FAR:				
Private Area (PA)			311,107	
Building Area (BA)			457,931	
Net FAR (PA/BA)			1.47	NFAR

STREET WIDTHS			
20'	37'	38'	28'

PARCEL SIZES			
MIN	54'	X	32'
MAX	60'	X	32'

Fig. 4.21 - Post-World War II Block. This block, located in the Seevorstadt West district, contains various plattenbau sructures that have no order to the street.

4.2.3 Post 1989 Wende Block Types

Block K

PUBLIC / PRIVATE:	Length	Width	Sq Ft	Percentage
Total Area (TA)	100	150	470,555	100%
Private Area (PA)	70	120	344,120	73%
Public Area (PB)			126,435	27%
GROSS COVERAGE:				
Total Area (TA)	100	150	470,555	100%
Building Coverage (BC)			183,502	39%
Public Area (PB)			126,435	27%
Private Open Space (PBO)			160,618	34%
NET COVERAGE:				
Private Area (PA)	70	120	344,120	100%
Building Coverage (BC)			183,502	53%
Private Open Space (PBO)			160,618	47%
GROSS FAR:				
Total Area (TA)			470,555	
Building Volume (BC x Floor #)			917,510	
Gross FAR (BA/TA)			1.95	GFAR
Number of Floors 5				
NET FAR:				
Private Area (PA)			344,120	
Building Area (BA)			917,510	
Net FAR (PA/BA)			2.67	NFAR

STREET WIDTHS			
50'	26'	26'	72'

PARCEL SIZES			
MIN	124'	X	46'
MAX	176'	X	46'

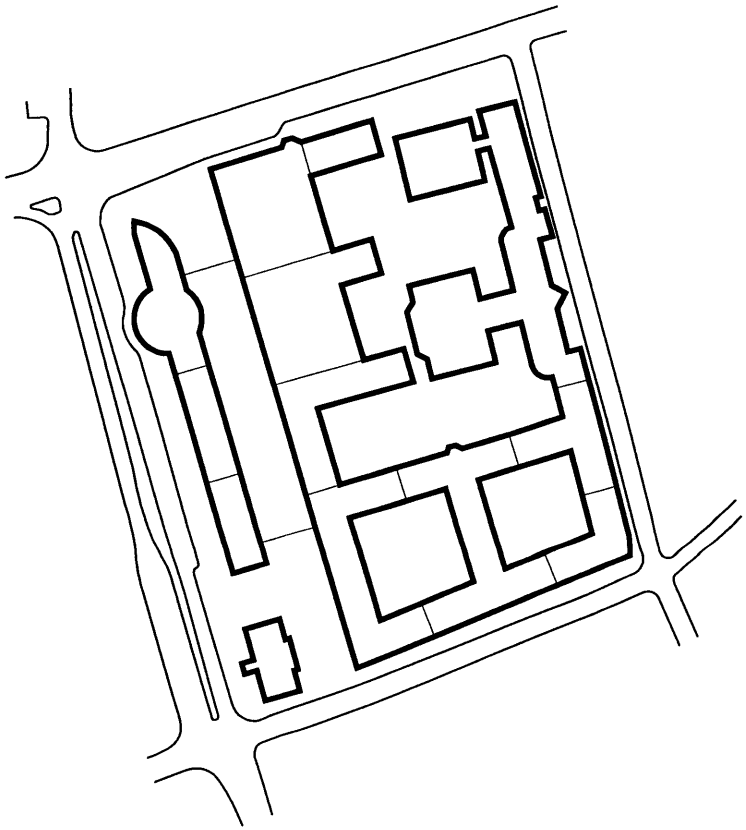


Fig. 4.22 - Post-1989 Wende Block. This block, located in the Seevorstadt West district, demonstrates the new building type and addresses the historical context of the block.

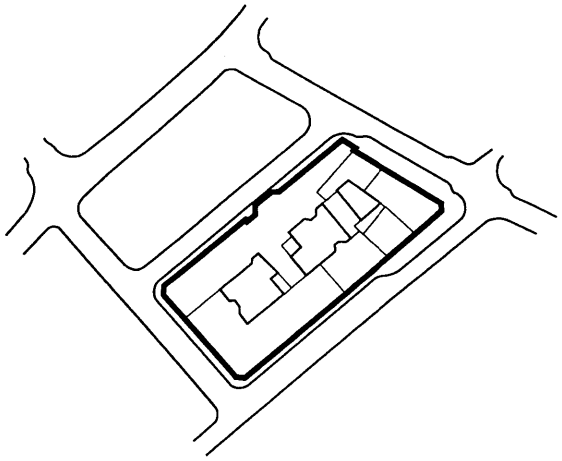


Fig. 4.23 - Post-1989 Wende Block. This block, located in the Seevorstadt West district, demonstrates the renovations of parcels to provide a larger footprint.

Block L

PUBLIC / PRIVATE:	Length	Width	Sq Ft	Percentage
Total Area (TA)	100	150	87,253	100%
Private Area (PA)	70	120	53,970	62%
Public Area (PB)			33,283	38%
GROSS COVERAGE:				
Total Area (TA)	100	150	87,253	100%
Building Coverage (BC)			44,772	51%
Public Area (PB)			33,283	38%
Private Open Space (PBO)			9,198	11%
NET COVERAGE:				
Private Area (PA)	70	120	53,970	100%
Building Coverage (BC)			44,772	83%
Private Open Space (PBO)			9,198	17%
GROSS FAR:				
Total Area (TA)			87,253	
Building Volume (BC x Floor #)			223,862	
Gross FAR (BA/TA)			2.57	GFAR
Number of Floors 5				
NET FAR:				
Private Area (PA)			53,970	
Building Area (BA)			223,862	
Net FAR (PA/BA)			4.15	NFAR

STREET WIDTHS			
26'	28'	35'	34'

PARCEL SIZES			
MIN	44'	X	75'
MAX	41	X	52'

4.3 Building Typologies

4.3.1 Pre-World War II Building Types

Building A: Apartment House

Historical Aspects:

This structure is similar to the urban villa when it was transformed into a multifamily structure. The difference is that the apartment house was meant to connect with other structures to create a continuous street edge.

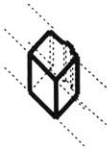
Formal Aspects:

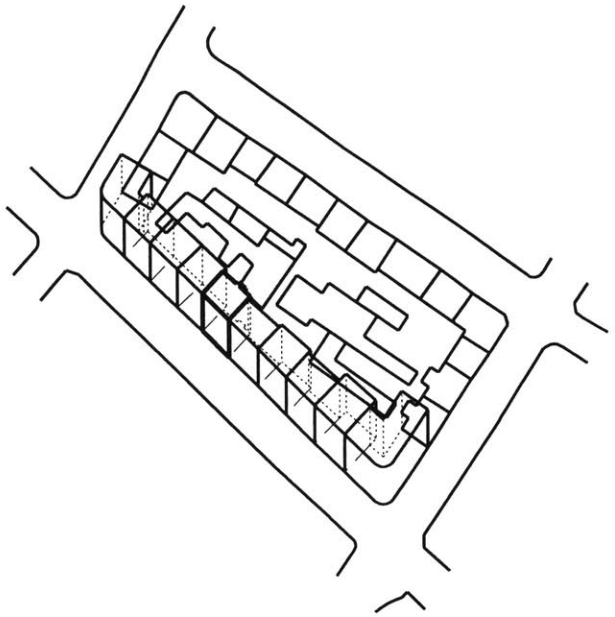
Since the apartment house is a party wall structure it is usually found with other similar typologies. Since most of the core of the city was destroyed in 1945 they now are found in the Neustadt, north of the Elbe.

The apartment house was part of the Baroque city back in the 1700s. It too carried elements that were streetmaking and created complex façades. Projections (box windows), demarcation of the ground floor, mixed use program, and entry into the courtyard (for service) gives the street wall visual complexity.

PARCEL

SIZE	50'	X	40'
AREA	2064.23 sq ft		





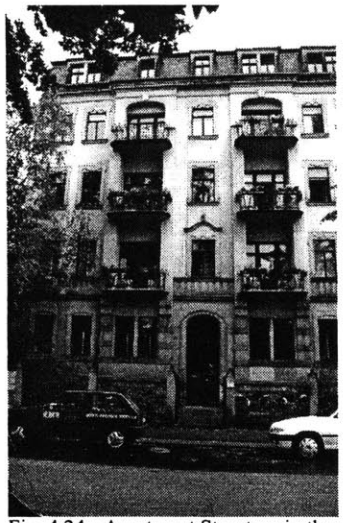
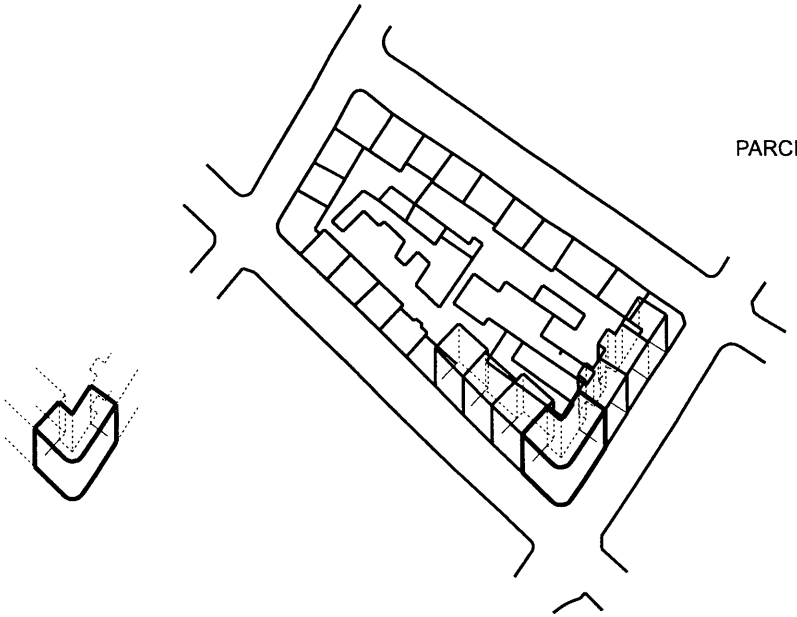


Fig. 4.24 - Apartment Structure in the Neustadt.

Building B: Corner Apartment House



PARCEL
SIZE 100' X 48'
AREA 5378.97 sq ft

Building C: Courtyard

Historical Aspects:

This building type is exactly like the apartment type, except that a courtyard has been included to provide light and air into the building. The introduction of this type resulted in the movement during the beginning of the 20th century for housing reform.

Formal Aspects:

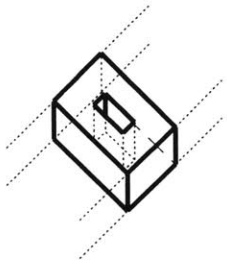
The structure performs the same street defining function as the other two. It also included the same façade elements as contained in the apartment house.

Variations of Courtyards:

The courtyard building type, as with the apartment house, were adapted whenever necessary in their role of street defining. This was common when they were situated at the corners of blocks.

PARCEL

SIZE	88'	X	135'
AREA	10859.59 sq ft		



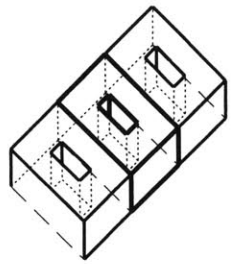
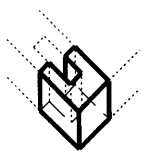
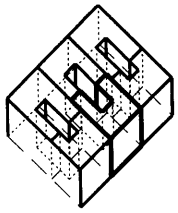


Fig. 4.25 - Coutyard structure in the *Neustadt* converted into a hotel.





Building D: Modified Courtyard

PARCEL

SIZE	72'	X	57'
AREA	3132.47 sq ft		

Building E: Villa "Kaffe Mill"

PARCEL
SIZE 46 X 43'
AREA 2022.34 sq ft

Historical Aspects:

The villa or "kaffe mill" housing can be found in and around most wealthy areas of Dresden. Built as large family estates in the 19th century they were then transformed by the communists into a multi-family dwelling. During the communist era, and even at present, they house about four families.

Formal Aspects:

This structure, besides the single family housing in the periphery, sits at one end representing the lowest density of structures. The main difference is that it is a street defining structure, unlike the detached single family home. The three to five story structures yield a strong presence on the street. The American equivalent would be the "triple-decker" in Boston.

In Dresden, this type of house carried a complete street vocabulary. The setbacks, fencing and walls result in a complex layering of space in a semi-public zone. These structures are very adaptable in the urban condition creating a street edge when aligned serially.

Fig. 4.26 - Urban Villa in the Neustadt. Many of these structures were subdivided into multi-family dwellings after the war.

4.3.2 Post-World War II Building Types

Building F: Perimeter

Historical Aspects:

This was the most fascinating structure because its form clearly defined the public and private spaces, but followed modern design principles. These appeared throughout Dresden particularly just outside the inner core. This was the first attempt at housing large amounts of the population.

Formal Aspects:

These structures did everything that their predecessors did. Street edges, courtyard entry, detailing, pitched roofs, were all maintained as a homage to the past, but because they were built in a new construction method embraced the modern movement. The noted characteristic of this typology is its ability to follow the street and maintain corners. The designers, whether or not they consciously recognized the importance of this gesture, produced a type that was urban in nature. This typology was usually found on a large plot with other buildings in the courtyards.

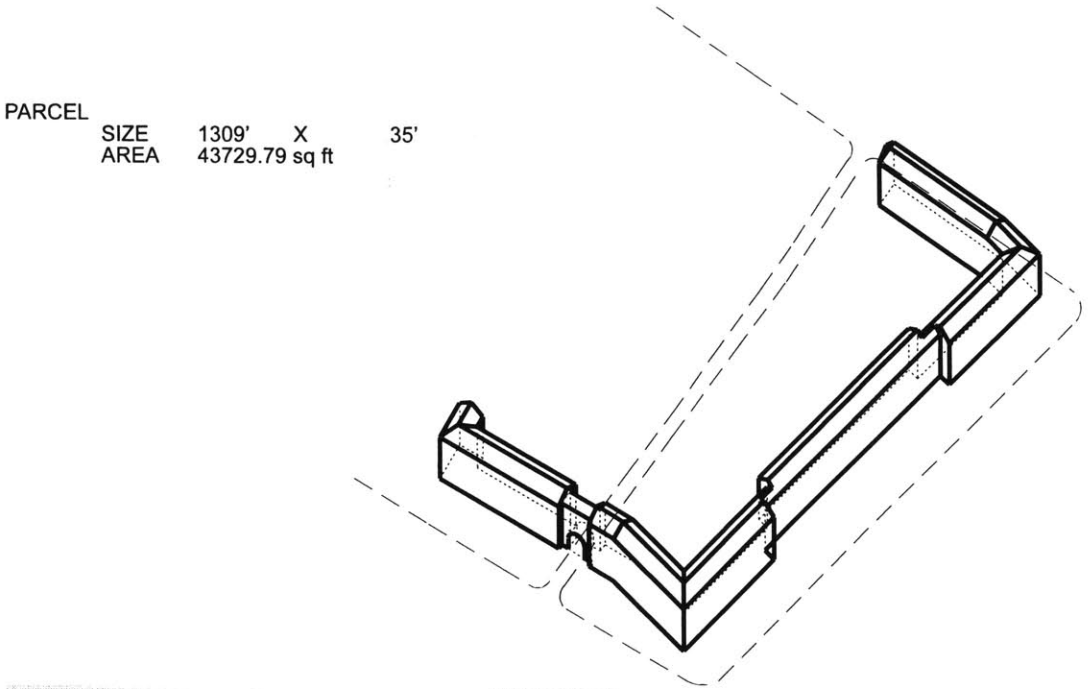


Fig. 4.27 - Perimeter housing in the Johannstadt district. This view shows the connection into the courtyard and detailing of the facade.

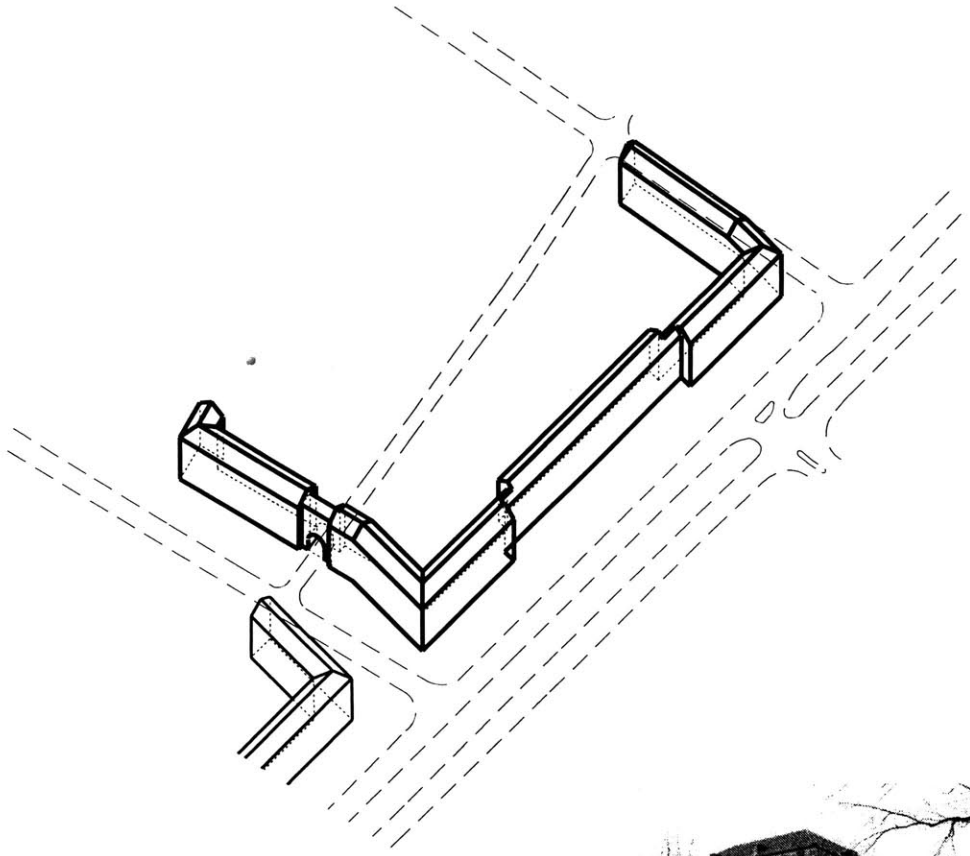


Fig 4.28 - Early socialist housing in the Südvorstadt District.

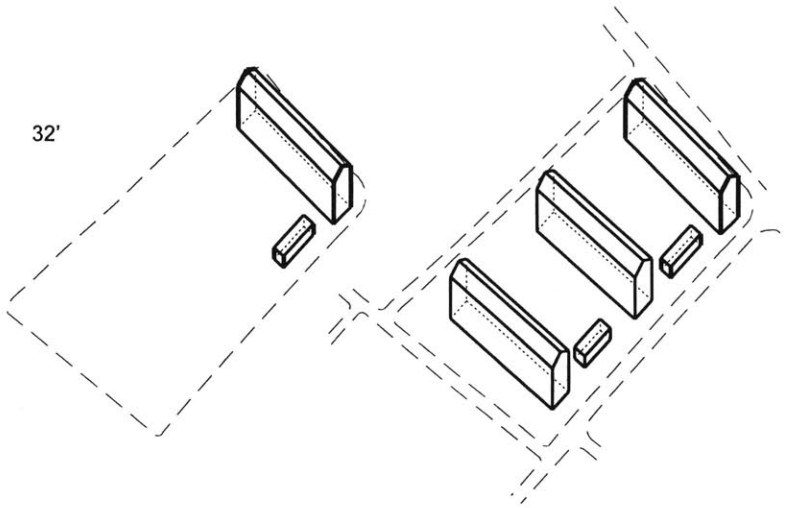
Building G: Siedlung

Historical Aspects:

This building type appears in two variations. The first being the discontinuous, which is long and orthogonal in one segment, not linked. The second is continuous and usually is in a zig-zag shape in plan.

The basic structure of the siedlung is similar to the perimeter block. The discontinuous type are prevalent in the area between the inner core and 26th ring. The continuous are found outside the 26th ring usually congregating in groups creating satellite towns such as Prohlis and Gorbitz containing a population ranging from 20,000 to 50,000 or more.

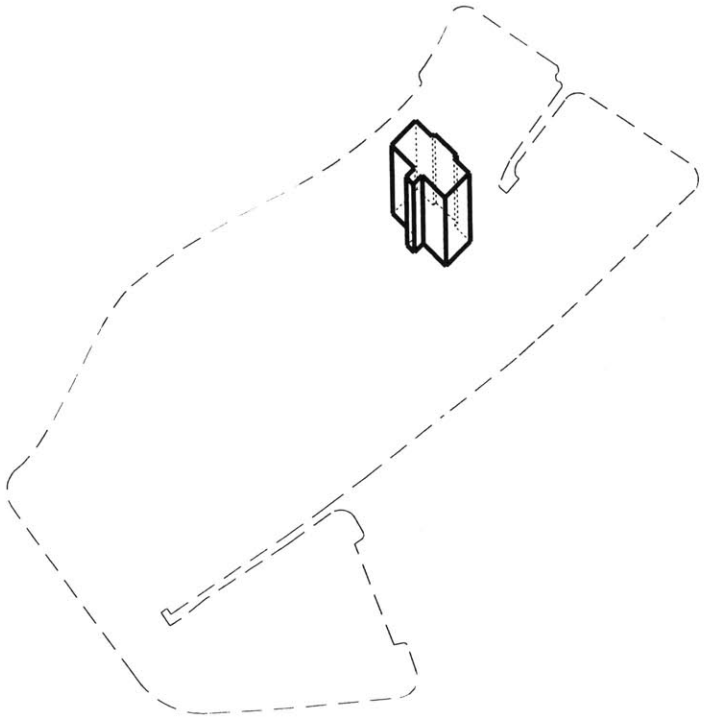
PARCEL
SIZE 178' X 32'
AREA 5825.56 sq ft



Formally:

These structures break from any alignment with the street. The tower and continuous siedlung are so familiar in other parts of Europe and the United States. Talk about the lack of identity (placemaking). There is no clear ownership of spaces – like social housing examples of the United States.

Fig 4.29 - Socialist housing structures in the Seevorstadt West district.



PARCEL
SIZE 97' X 67'
AREA 9969.58 sq ft

Fig. 4.30 - Tower structures in the Seevorstadt West district.

Building H: High-rise Tower

Historical Aspects:

Vertical high-density structures began appearing in Dresden during the late 60s. The structure was the fracture from the typical urban design criteria of that time. The structures were usually set far back from the street, and they had not formal or identifiable connection to the ground plan. There were no transitions in the sequence from the street, through the setback, to the building. These characteristics are identical to the social housing projects found in the United States at this time, and other mass housing projects throughout Europe.

Formal Aspects:

The formal characteristics embraced the automotive and its high velocities. This is apparent because of their location along main thoroughfares through Dresden. The human scale is stretched and reduced. In certain instances they do create edges, but this is very rare, particularly in towns like Gorbitz and Prohlis in the periphery.

Building H: High-rise Tower (continued)

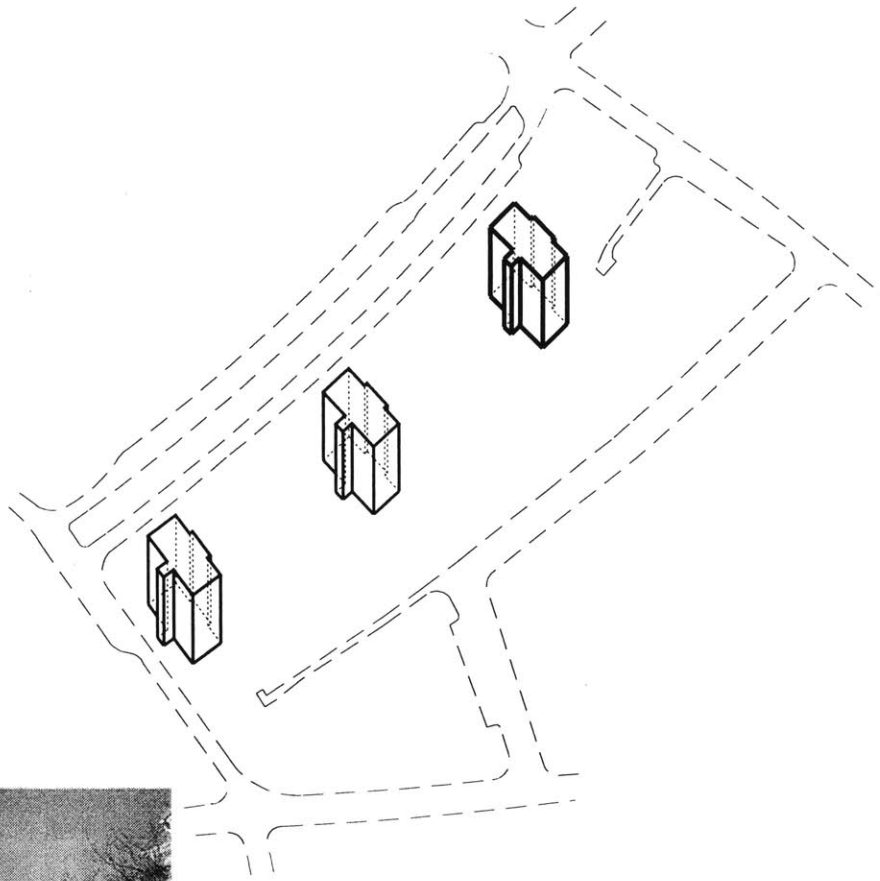


Fig. 4.31 - Tower structure in the Seevorstadt East district.

4.3.3 Post 1989 Wende Building Types

Building I

Historical Aspects:

Vertical high-density structures began appearing in Dresden during the late 60s. The structure was the fracture from the typical urban design criteria of that time. The structures were usually set far back from the street, and they had not formal or identifiable connection to the ground plan. There were no transitions in the sequence from the street, through the setback, to the building. These characteristics are identical to the social housing projects found in the United States at this time, and other mass housing projects throughout Europe.

Formal Aspects:

The formal characteristics embraced the automotive and its high velocities. This is apparent because of their location along main thoroughfares through Dresden. The human scale is stretched and reduced. In certain instances they do create edges, but this is very rare, particularly in towns like Gorbitz and Prohlis in the periphery.

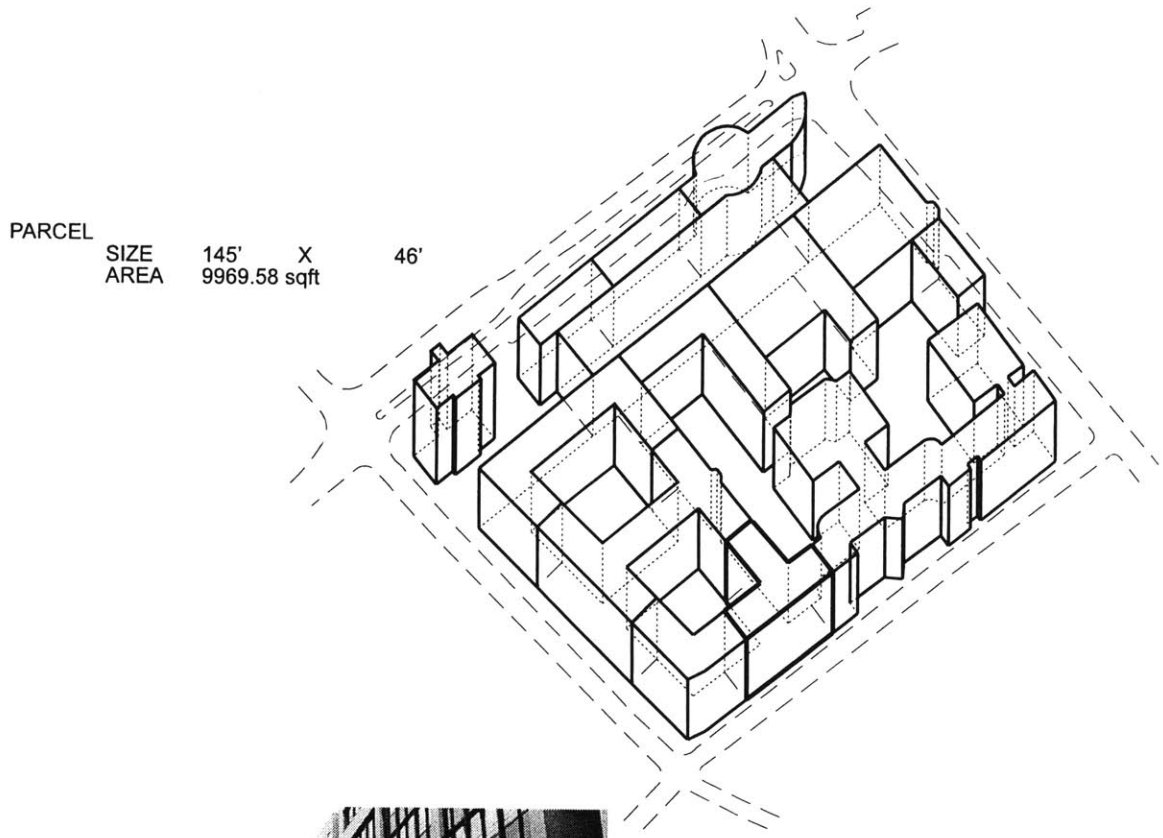
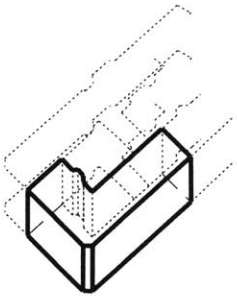
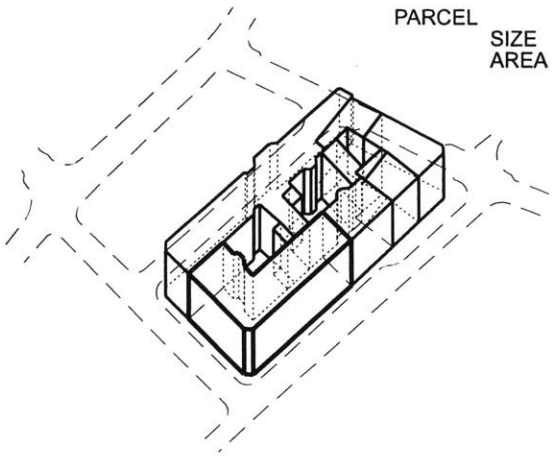


Fig. 4.32 - Contemporary office building in the Seevorstadt West district.

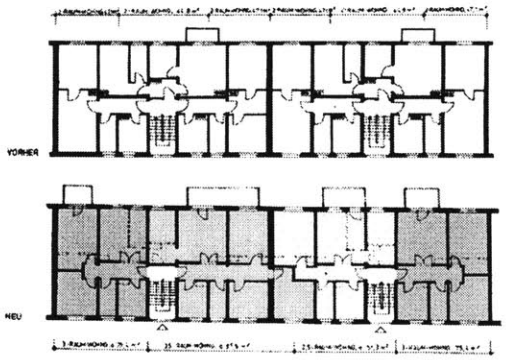
Building J





PARCEL
SIZE 184' X 52'
AREA 13286.04 sqft

Fig. 4.33 - Contemporary office building in the Seevorstadt West district.



Type 1

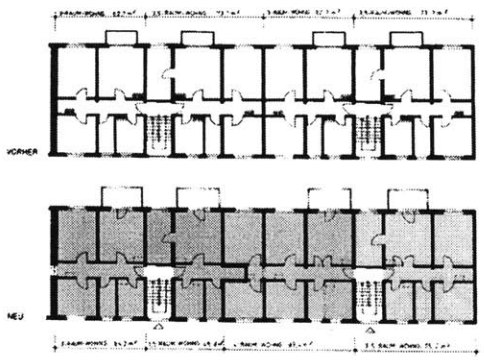
Old

Room (Area)	sm	sf
2	47.1	506.980
2	44.8	482.223
2	47.1	506.980
2	47.1	506.980
2	44.8	482.223
2	47.1	506.980
12	278	2,992.368

New

Room (Area)	sm	sf
3	75.4	811.599
3.5	87.5	941.843
2.5	51.3	552.189
3	75.4	811.599
12	289.6	3,117.230

Fig. 4.34 - Plans showing the before and after renovations of housing type 1.



Type 2

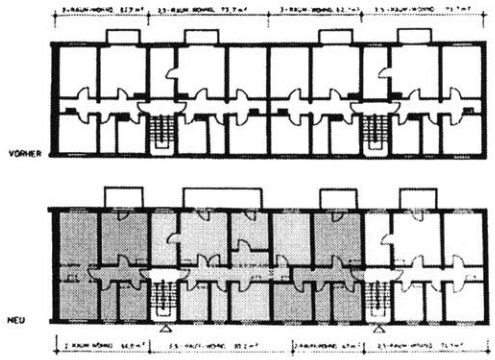
Old

Room (Area)	sm	sf
3	62.7	674.897
3.5	73.7	793.301
3	62.7	674.897
3.5	73.7	793.301
13	272.8	2,936.396

New

Room (Area)	sm	sf
3	64.2	691.043
1.5	45.3	487.605
4	93.4	1,005.350
3.5	75.2	809.446
12	278.1	2,993.445

Fig. 4.35 - Plans showing the before and after renovations of housing type 2.



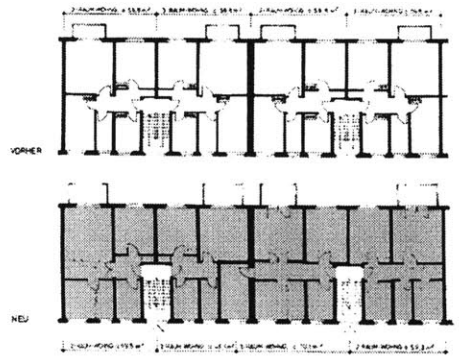
Old

Room (Area)	sm	sf
3	59.8	643.682
3	59.8	643.682
3	59.8	643.682
3	59.8	643.682
12	239.2	2,574.728

New

Room (Area)	sm	sf
2	59.3	638.300
2	46.7	502.675
3	70.1	754.550
2	59.3	638.300
9	235.4	2,533.826

Fig. 4.36 - Plans showing the before and after renovations of housing type 3.



Type 4

Old

Room (Area)	sm	sf
3	62.7	674.897
3.5	73.7	793.301
3	62.7	674.897
3.5	73.7	793.301
13	272.8	2,936.396

New

Room (Area)	sm	sf
2	64.6	695.349
3.5	90.2	970.905
2	47	505.904
2.5	74.1	797.606
10	275.9	2,969.764

Legend

- 3 Area Apartment
- 3.5 Area Apartment
- 2.5 Area Apartment
- 2 Area Apartment
- 4 Area Apartment
- 1.5 Area Apartment

Fig. 4.37 - Plans and statistics before and after renovations of housing type 4.

4.4.1 Internal Renovations to the Existing Socialist Housing

From the statistics of the block calculations of the Pre-World War II, Post-World War II, and composite one can assess that the new blocks are designed with guidelines limiting development into the green space of the courtyard. This provides parks and green space at a local level for the residents. It is also interesting to note that the block site begins to change resembling the sizes before the war. The statistics on the internal renovation indicate the changing needs of renters and home-owners. There seems to be a need for larger variety in unit types and larger room sizes.

Room Number and Size Changes

Old				New				
Room (Area) Type	m2	f2		Room (Area)	m2	f2		Type
				1.5	45.3	487.605		2
				TOTAL	45.3	487.605		
2	47.1	506.980	1					
2	44.8	482.223	1	2	59.3	638.300	3	
2	47.1	506.980	1	2	46.7	502.675	3	
2	47.1	506.980	1	2	59.3	638.300	3	
2	44.8	482.223	1	2	64.6	695.349	4	
2	47.1	506.980	1	2	47	505.904	4	
TOTAL	46.33	498.728		TOTAL	53.7	578.022		
				2.5	51.3	552.189	1	
				2.5	74.1	797.606	4	
				TOTAL	62.7	674.897		
3	62.7	674.897	2	3	75.4	811.599		1
3	62.7	674.897	2	3	75.4	811.599		1
3	59.8	643.682	3	3	64.2	691.043	2	
3	59.8	643.682	3	3	70.1	754.550	3	
3	59.8	643.682	3					
3	59.8	643.682	3					
3	62.7	674.897	4					
3	62.7	674.897	4					
TOTAL	62.7	674.897		TOTAL	72.75	783.075		
3.5	73.7	793.301	2	3.5	87.5	941.843	1	
3.5	73.7	793.301	2	3.5	75.2	809.446	2	
3.5	73.7	793.301	4	3.5	90.2	970.905	4	
3.5	73.7	793.301	4					
TOTAL	73.7	793.301		TOTAL	84.3	907.398		
				4	93.4	1,005.3502		
				TOTAL	93.4	1,005.350		

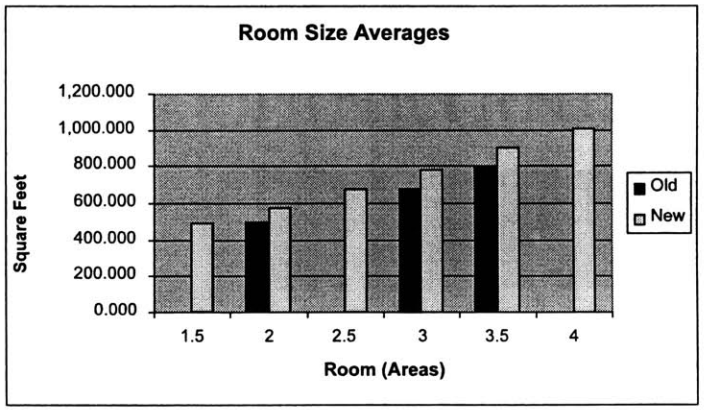


Fig. 4.38 - Graph showing the increase in room number and size after renovations.

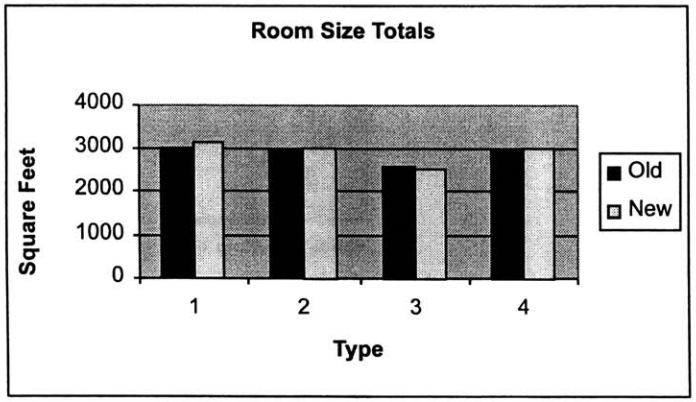


Fig. 4.39 - Graph showing the square footage totals in each apartment type before and after renovations.

Room Number and Size Comparison

	Old			New		
	Rooms	m2	f2	Rooms	m2	f2
Type 1	12	278	2992.368253	12	289.6	3117.229799
Type 2	13	272.8	2936.396026	12	278.1	2993.444776
Type 3	12	239.2	2574.728483	9	235.4	2533.825603
Type 4	13	272.8	2936.396026	10	275.9	2969.764163

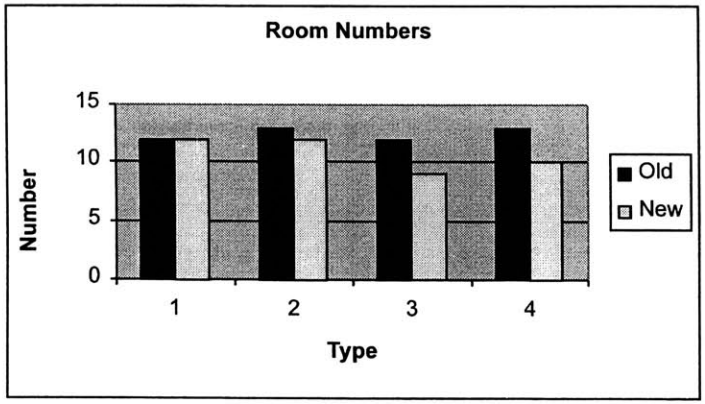


Fig. 4.40 - Graph showing decrease in room numbers in each type before and after renovations.

Plan Statistics of German Socialist Housing

Averages	Old		New	
Room (Area)	m2	f2	m2	f2
1.5	0.000	0.000	45.300	487.605
2	46.333	498.728	53.700	578.022
2.5	0.000	0.000	62.700	674.897
3	62.700	674.897	72.750	783.075
3.5	73.700	793.301	84.300	907.398
4	0.000	0.000	93.400	1,005.350

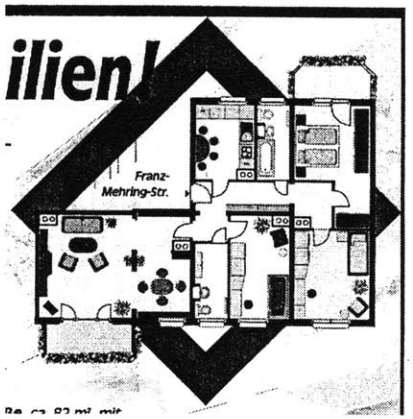


Fig. 4.41 - 3.5 room house

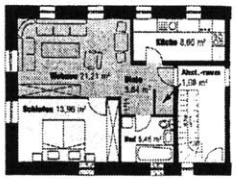
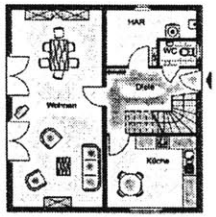
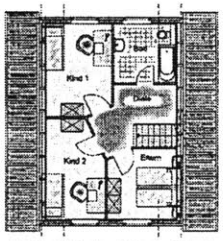


Fig. 4.42 - 3.5 room house

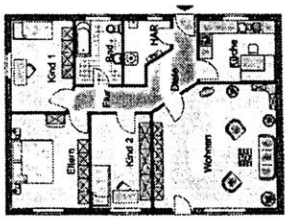


Wohnfläche im EG: ca. 67 m²



Wohnfläche im DG: ca. 43 m²

Fig. 4.43 - 3.5 room house



Wohnfläche im EG: ca. 104

Fig. 4.44 - 3.5 room house

Room Sizes of Single Family Detached Houses

	Sq M	Sq Ft	L2
1 Bedroom			
Total	52.57	565.86	23.79
Entry	3.84	41.33	6.43
Living	21.21	228.30	15.11
Kitchen	8.66	93.22	9.65
Bath	5.45	58.66	7.66
Bedroom	13.96	150.26	12.26
Storage	1.08	11.63	3.41
3.5 Room	82	882.64	29.71
4 Room	98	1054.86	32.48
4 Room 1	00	1076.39	32.81
3 Bedroom			
1st floor	67	721.18	26.85
2nd floor	43	462.85	21.51
3 Bedroom			
1st floor	104	1119.45	33.46

4.4.2 Room Sizes of New Single Family Housing

It is worthwhile to note that since Dresden is declining in population it is advantageous to understand the current market of what is being offered in the periphery. The room sizes were studied to gain understanding of the attractive qualities and how they might be incorporated into the design of new units in the Seevorstadt district. Overall, the room size and number seem to be the two prime qualities in the four plans in the analysis. Other qualities are owning of ones house, property, and personal green space. These qualities can be incorporated in the unit design and allow the urban housing to be just as attractive as the suburban homes. The urban housing also has the advantage of community services such as laundry facilities, daycare, and home business support that is presently lacking in the current house plans in the 1998 *Immobilien* Magazine.

Fig. 4.45 - Plan of Dresden, c. 1997. The dark structures are designated as historic by the planning department. The box designates the amount of area studied in the analysis.

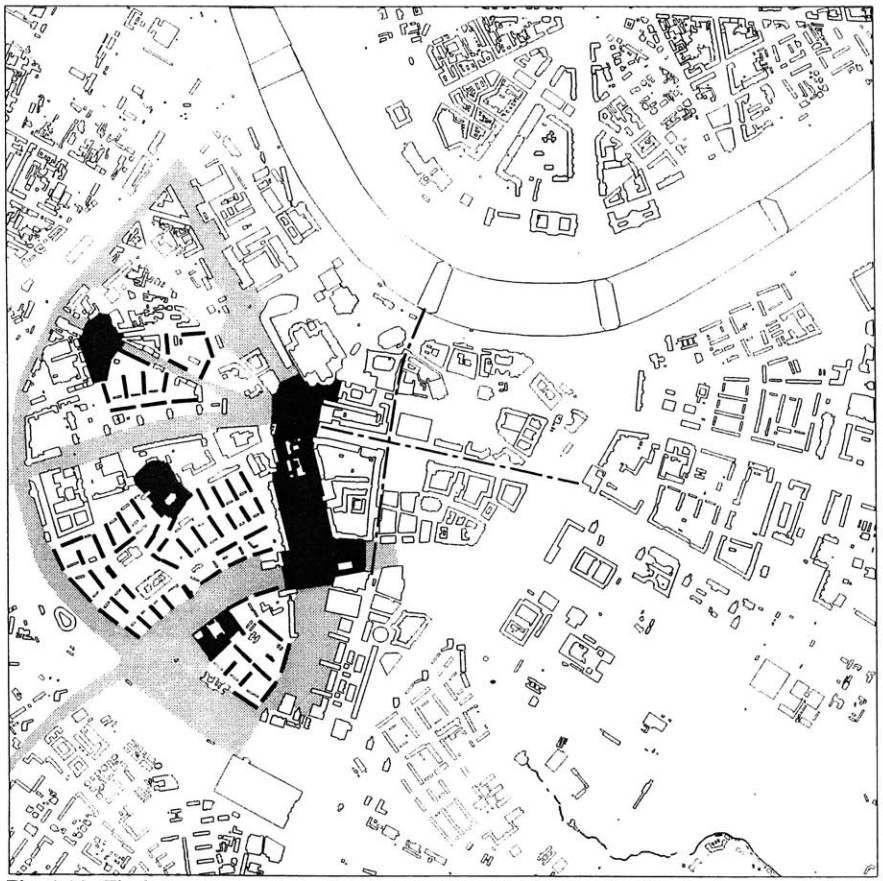


Fig. 4.46 - The large amount of street space and primary public spaces within the Seevorstadt district.

4.5 Seevorstadt West Analysis

4.5.1 Important Buildings in the Seevorstadt West District

Fig. 4.47 - *Annenkirche* 1578

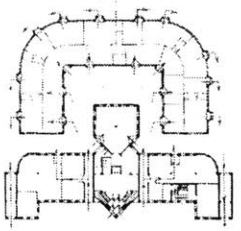


Fig. 4.48 - *Ehem. Öffentlicher Arbeitsnachweis* 1925-26

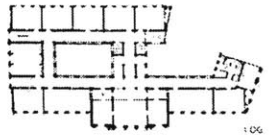


Fig. 4.49 - *Hochschule für Musik* 1884

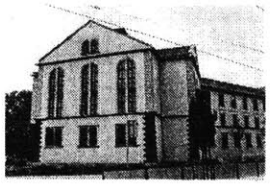


Fig. 4.50 - *Ehem. Maternihospital* 1837-38

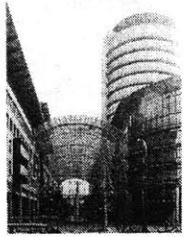


Fig. 4.51 - *World Trade Center* 1994-96

Fig. 4.52 - 1993 Planning Department masterplan for the Seevorstadt East.

4.5.2 Dresden Planning Department Masterplan

The planning department has taken a very minimal approach when it comes to the actual housing quarters in Dresden. In Fig. 4.52, very little has been done with the housing structures. The only changes occurs on the edges and around the *Annekirche*. The proposed district plan in Chapter 5 sought to go beyond the step taken by the planning department and look at how things would be resolved at an architectural level.

4.5.3 Public Uses

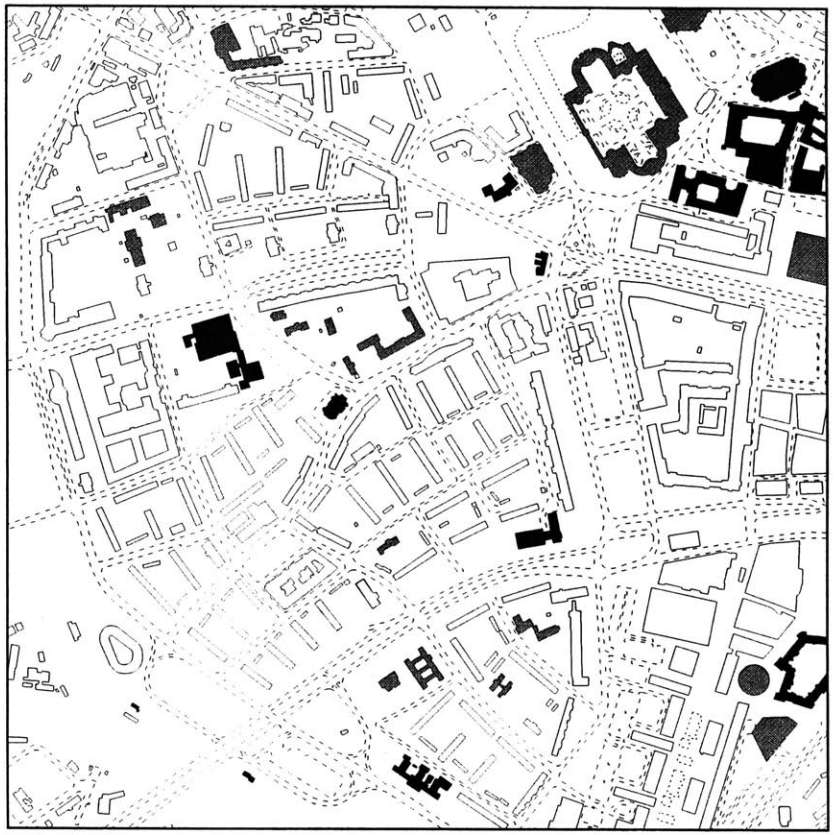


Fig. 4.53 - Public uses

Religious
Cultural
Governmental
Educational
Recreational

4.5.4 Private Uses

Fig. 4.54 - Private uses

Religious
Cultural
Governmental
Educational
Recreational

4.5.5 Massing Study

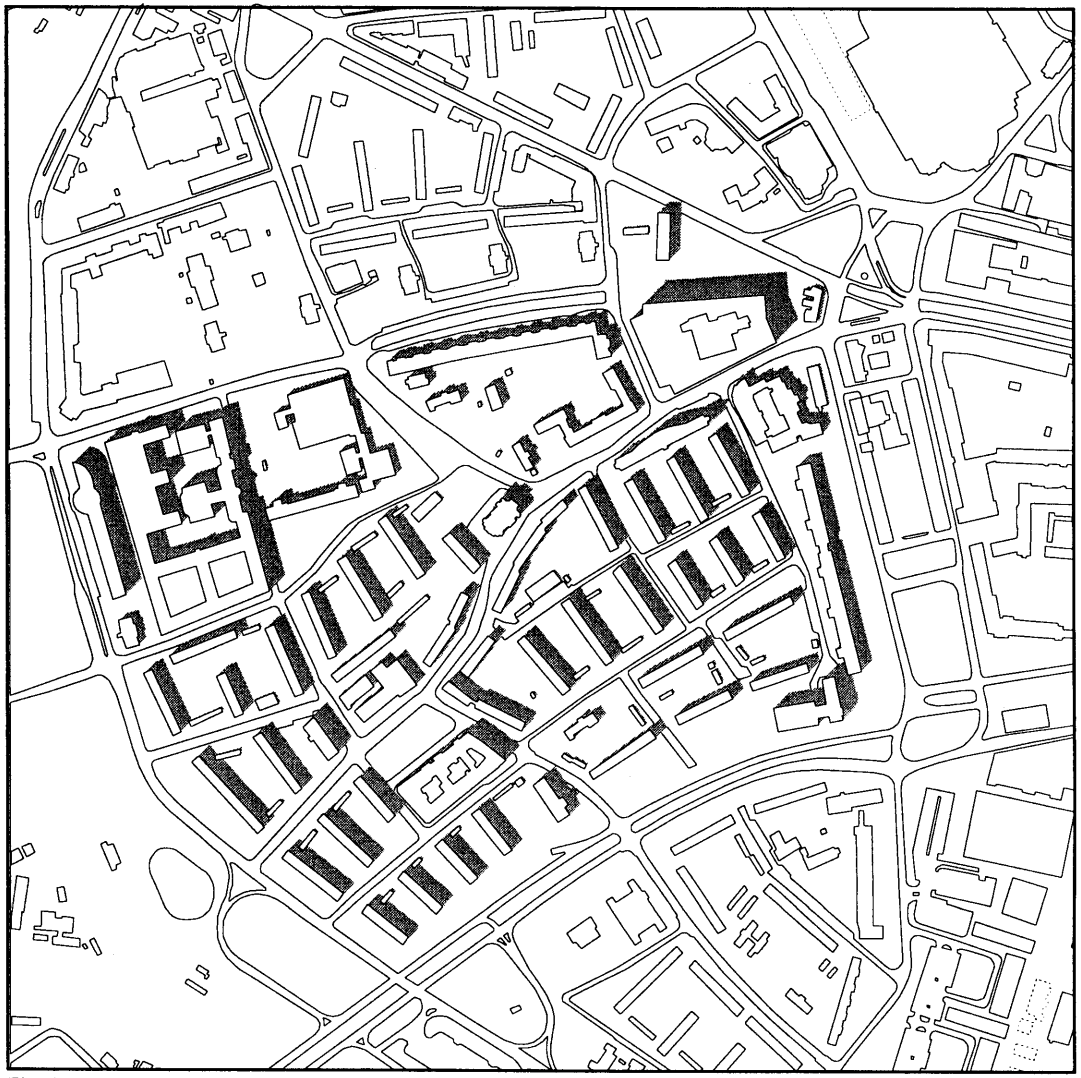


Fig. 4.55 - Massing study of the district.

4.5.6 Sub-districts

Fig. 4.56 - Diagram showing the four sub-districts.

4.5.6 Center, Edges, and Collectors

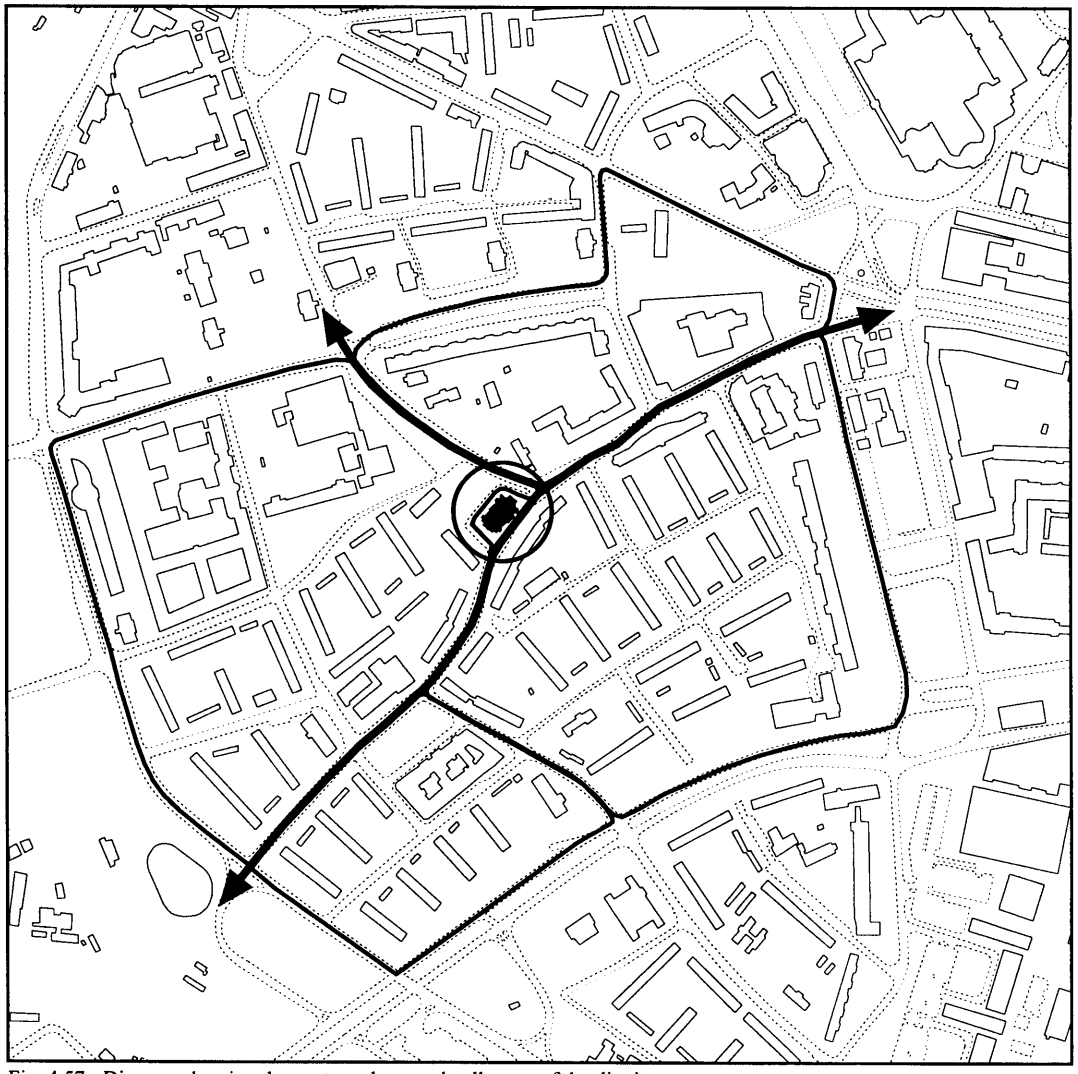


Fig. 4.57 - Diagram showing the center, edges, and collectors of the district.

4.5.6 Sequences

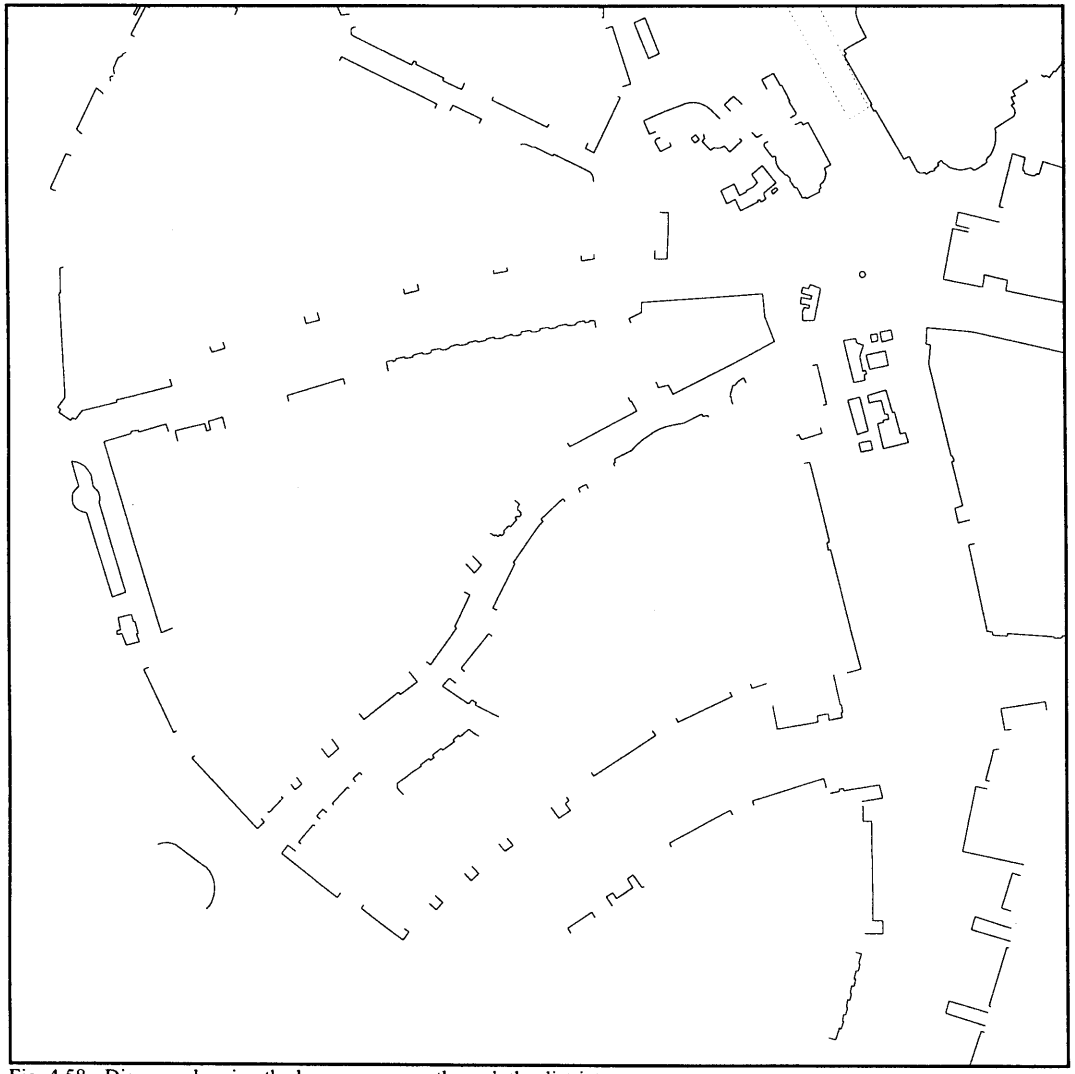
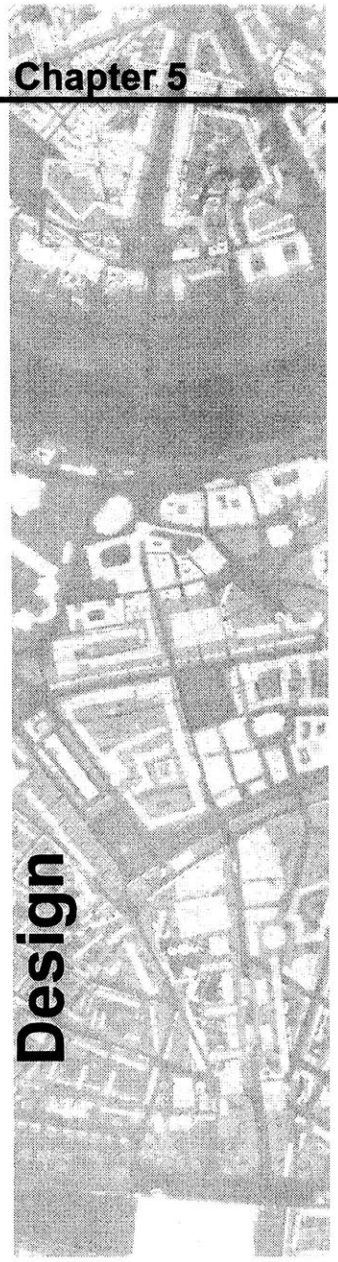


Fig. 4.58 - Diagram showing the large sequences through the district.

Chapter 5



Design

Design objectives for the redevelopment of the Seevorstadt West district.

1. **City to Town**
   a. Provide street connections through the sector to other sectors.
   b. Reshape the current expressway boundaries imposed on the site.
2. **Sub-Districts**
   a. Define sub-districts by distinct spaces.
   b. Define sub-districts by distinct streets.
   c. Define sub-districts by distinct block types.
3. **Sequences**
   a. Reinforce historic main streets leading to the church.
   b. Proved connections to other adjacent districts and neighborhoods.
4. **Spaces**
   a. Clarification of existing open spaces.
   b. Creation of new neighborhood spaces.
5. **Streets**
   a. Provide for a variation in street widths and types.
   b. Provide for a variation in street pattern.
6. **Density**
   a. Provide for a variation in building typologies.
   b. Provide for a variation in building heights to soften regular height of housing blocks.
   c. Provide for a variation in block sizes.
7. **Public and Private**
   a. Clarify the public façade of the housing blocks and the interior private courtyards.
   b. Provide mixed-use ground floor retail through the renovation of existing structures.
   c. Clarify the entry points into the inner courtyard.
8. **Program**
   a. Provide for mixed-use ground floor for use of renters or other business owners.
   b. Provide for parking through the raising of the ground floor in the courtyard.
   c. Provide for interior courtyard services for recreation (pool), education (daycare), or simply a playground for children.
9. **Passageways**
   a. Create entrances that allow for mid-block circulation.
   b. Provide for pedestrian access that allows for the linking of interior courtyard spaces.
10. **Housing**
    a. Continue interior renovation of current housing structures.
    b. Allow for additions to the existing structures, which help define the block structure as prescribed in the masterplan.
    c. Provide apartments that are competitive to the current housing market.
    d. Allow for a heterogeneous population within the block (mixed age, income, needs, etc.).

5.1 Design Methodology

While this thesis is presented in a way that logically presents the project at the city scale level through the unit scale level the actual design process was not so clear. Throughout the process several scales were being worked out at the same time. The testing out of unit and block sizes in the master plan lead to other discoveries at both levels.

The list of objectives on page 120 were derived from the analysis of both the master plan created by the Dresden planning and the existing conditions of the city form. In general, as with the goal of the planning department, the amount of open space was sought to be reduced. The streets and main spaces, while a secondary focus, were are a secondary focus, were reinforced and new ones created to accomplish the objectives. Also through the process of redevelopment the existing fabric would remain intact wherever possible. Overall the primary focus of this thesis was at the local level. The new housing was introduced to work with the existing six story structures to achieve the master plan and the guidelines that it established.

5.2 Urban Precedents

From the analysis of the Seevorstadt district many questions remain unanswered in the approach of redesign. The precedents listed here were collected as guides in the actual form. Knowing the existing conditions and problems was the first step in the process. The second step was the actual design of the master plan and units. Two projects that were studied because of their similarity of conditions as seen in Dresden. In both cases there appears to be two lessons to be learned. The first is how to deal with existing housing structures and the second is the reorganization of the site plan.

Fig. 5.1 - Proposed site plan of the Lake West project.

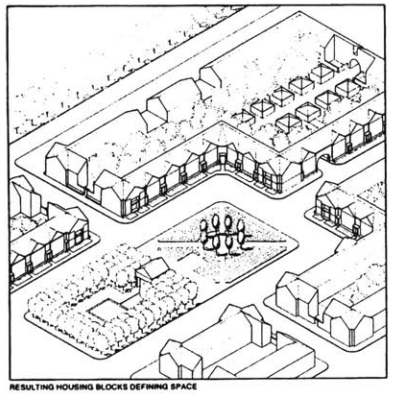


Fig. 5.2 - Proposed Reconfiguration

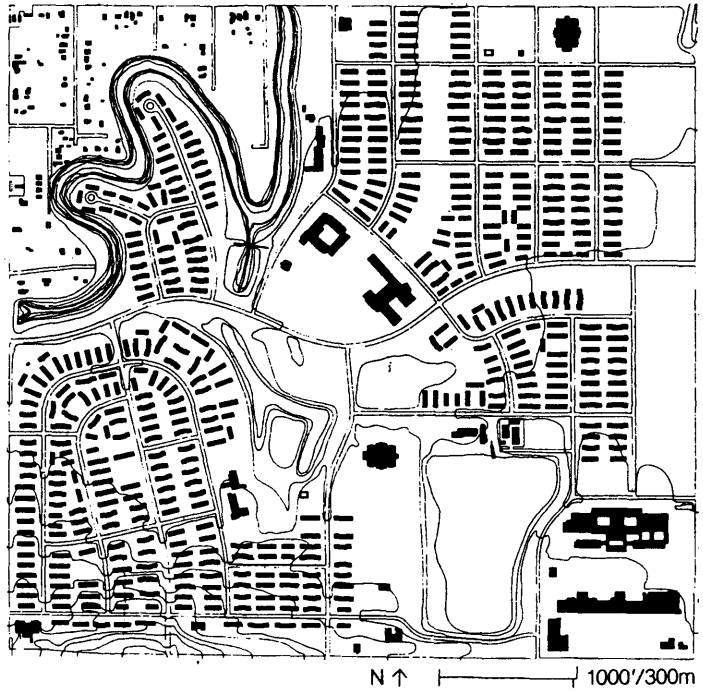


Fig. 5.3 - Existing site plan of the Lake West project

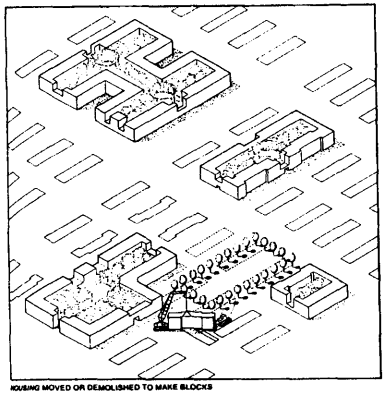


Fig. 5.4 - Existing structures

5.2.1 Lake West, Dallas, TX

Designed by Peterson, Littenberg, Architects. The renovation of existing low-rise two story housing structures. To give it a structure of a town with public and private spaces. Their goal was to work with the existing condition and enhance it by rearranging the structure and adding more programmatic elements. In the end they create a former housing development that functions like a town.[1]

[1]Thomas Fisher, "*Subsidized Housing*", p. 80.

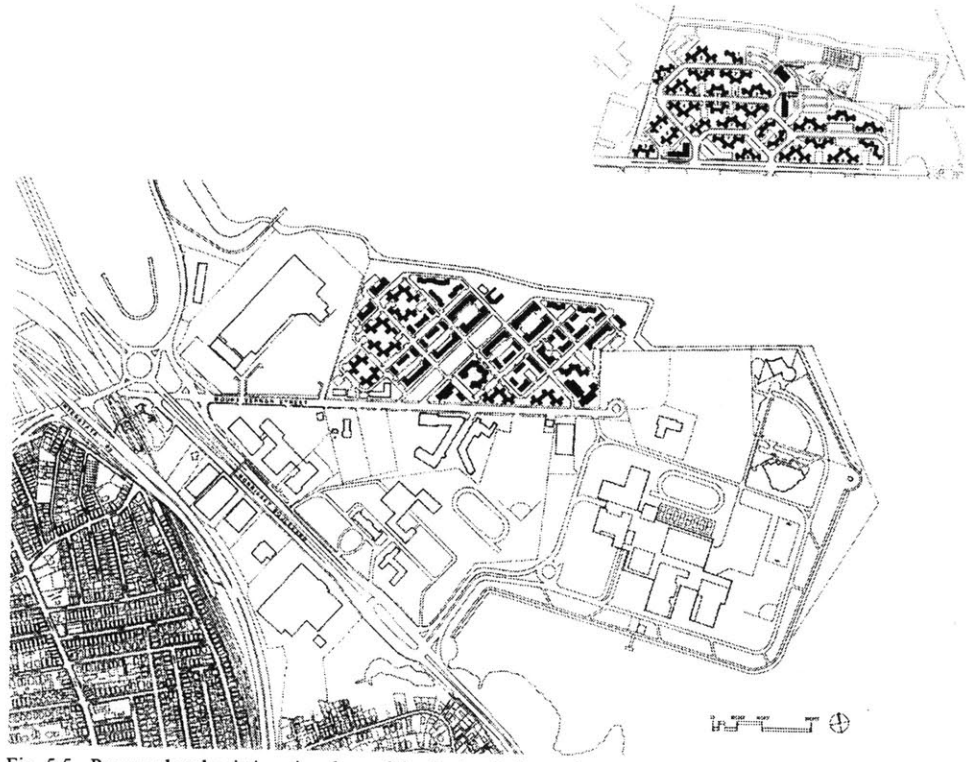


Fig. 5.5 - Proposed and existing site plans of the Harbor Point project.

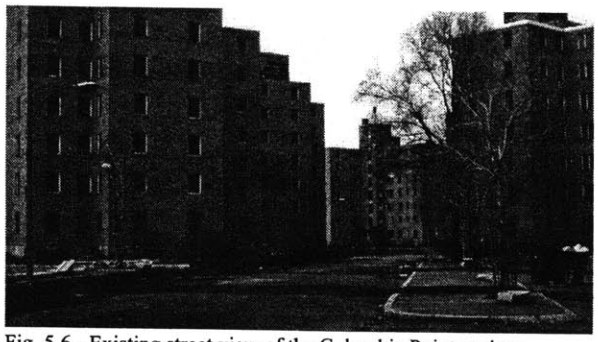


Fig. 5.6 - Existing street view of the Columbia Point project.

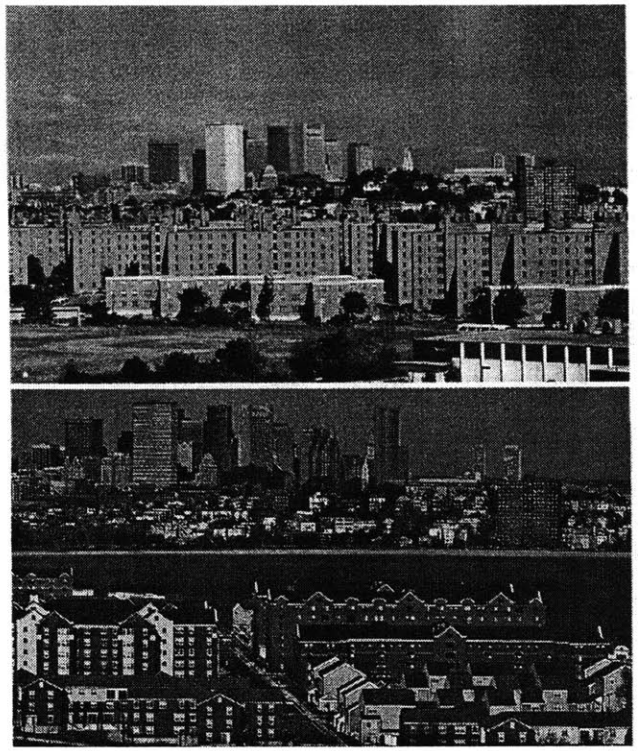


Fig. 5.7 - Before and after air views of the projects redevelopment.

5.2.2 Harbor Point, Boston, MA

The Harbor Point Project by Goody Clancy & Associates follows the same criteria to redevelop the former housing project. This former Columbia Point public housing project was deemed a failure and in 1978 was three-quarters abandoned. The architects created a main public green space for residents and reorganized the streets providing views of Boston's Harbor. Courtyard spaces were defined by new five story structures that work with lower two and three story structures. The main connection that relates to Dresden is Joan Goody's comment "because of the large parking lots and other open areas separating the buildings, there were no real streets or focus for the kinds of activities that create a sense of community – meeting, chatting and recognizing neighbors (and strangers)".[2]

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[2]Joan E. Goody, "*From Project to Community: The Redesign of Columbia Point*", p. 22

Fig. 5.8 - Streetview, Wohnpark Rennweg

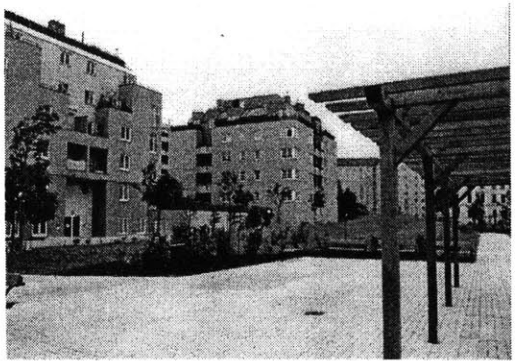


Fig. 5.9 - Courtyard, Wohnpark Rennweg

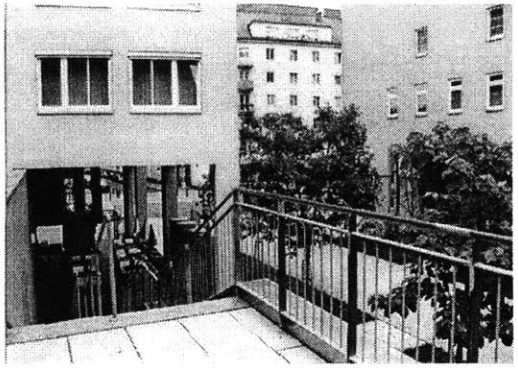


Fig. 5.10 - Mid-block Circulation, Wohnpark Rennweg

Fig. 5.11 - Courtyard, Wohnpark Rennweg

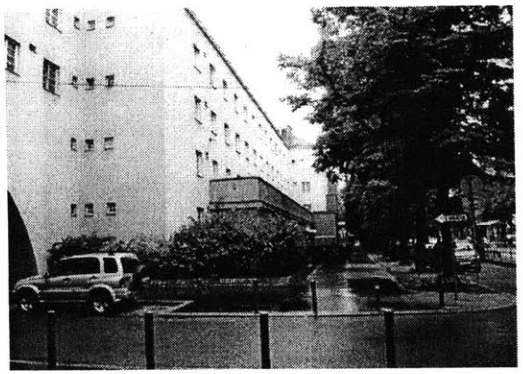


Fig. 5.12 - Commercial Addition, Karl Marx Hof

5.2.3 Viennese Housing

The Viennese precedents are included because of their mixing of development within a block. The Wohnpark Rennweg project demonstrates that the single villa structure can work inside the block in a green space. There is an interesting relationship between the large perimeter structure and the smaller villas within the block. The visual connections from the street to the courtyard work well in establishing a layering of space. It shows that the street edge is maintained in some fashion it doesn't matter what goes on beyond that edge.

Once one enters the courtyard there is an incredible sensation of security and private occupation. The space within the courtyard is broken up by the villas and various ground plan changes. This is a major difference from the courtyard spaces of the Karl Marx Hof or working housing of that era. While landscaped., the space still seems to be vast to consider personally owned.

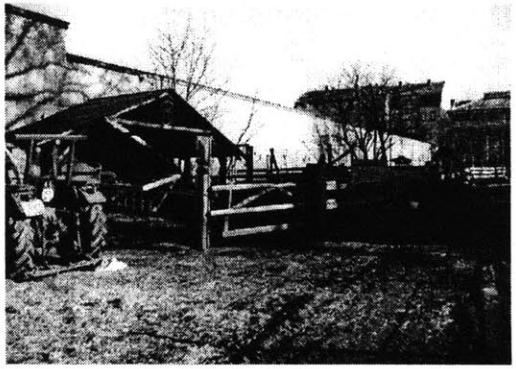


Fig. 5.13 - Working Farm, Neustadt

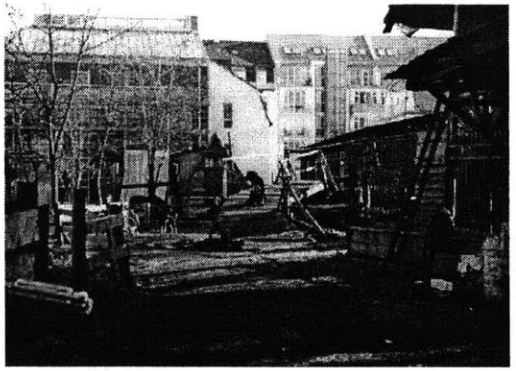


Fig. 5.14 - Working Farm, Neustadt

Fig. 5.15 - Mixed-Use Commercial, Neustadt

Fig. 5.16 - Playground Facilities, Neustadt

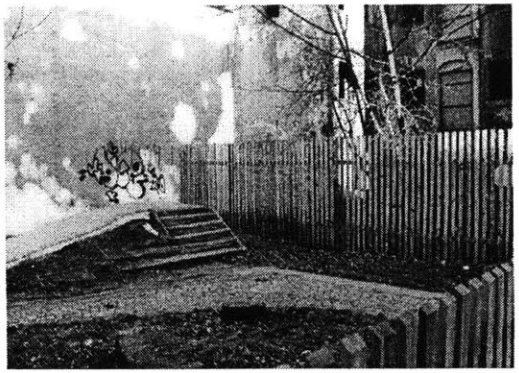


Fig. 5.17 - Playground Facilities, Neustadt

5.2.4 Dresden's Neustadt

The rest of the precedents fall into three categories: courtyards, early Socialist housing, and new housing. These photos were taken during two trips to Dresden and represent ideas that are common to the cities urban development. The *Neustadt* examples of courtyards provide more examples of program and design. The playgrounds and recreational program provide residents and people from around the community a place to meet.

Fig. 5.18 - Projections, Südvorstadt

Fig. 5.19 - Renovated commercial, Johannstadt

Fig. 5.20 - Expanded attic space, Johannstadt

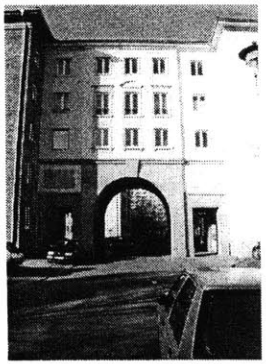


Fig. 5.21 - Mid-block Circulation, Johannstadt

Fig. 5.22 - Box Windows, Johannstadt

5.2.5 Early 1950's Socialist Housing

The other early socialist perimeter housing built in the 1950s provide answers in the design of blocks and the façade. Here a language was established in ornamentation and sequence through the blocks that maintained planning ideologies that existed prior to World War II. Elements like archways, box windows, cast concrete façade details, and add a layer of detail to an otherwise uneventful façade. Visual cues reinforce relationships and connections between spaces. Currently, there are a few housing structures that have undergone renovation of the first floor with a mixed-use status. This is beneficial with two ways. The first is that it provides a distinct horizontal zone of space. Secondly it increases pedestrian traffic on the street giving it character and atmosphere.

Fig. 5.23 - Mixed-use, Seevorstadt West

Fig. 5.24 - Underground Parking, Seevorstadt West

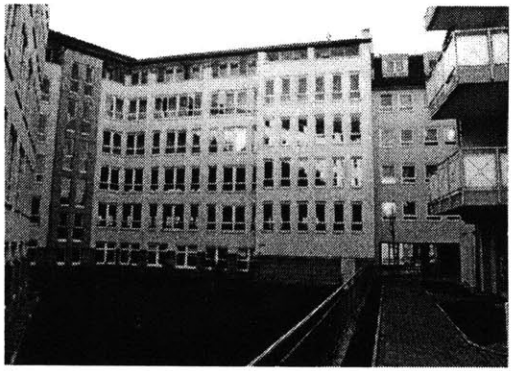


Fig. 5.25 Internal Courtyard, Seevorstadt West

Fig. 5.26 - Renovation,
Seevorstadt East

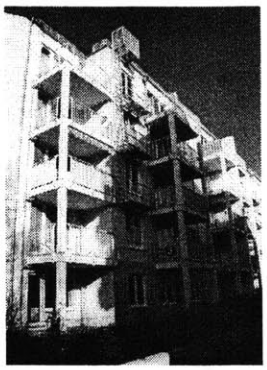


Fig. 5.27 - Expansion,
Seevorstadt East

5.2.6 New Housing in Dresden

The new housing built after the fall of the Berlin Wall is the vast precedent studied. These structures were scarce and have yet to flourish due to the economic situation in Germany. The first shows a renovation of socialist housing pushed to the extreme. The proof was lifted, the rooms added to through projecting past the existing footprint and the building of a continuous balcony structure. The other example shows a mixed-use structure with a secondary set of apartments.

In the courtyard, the project incorporates underground parking, which is accessed from the street. It also incorporates a mix in commercial use. Where one enters into the courtyard, the commercial space is designed for the space business. The upper floors in the building are larger companies needing larger space.

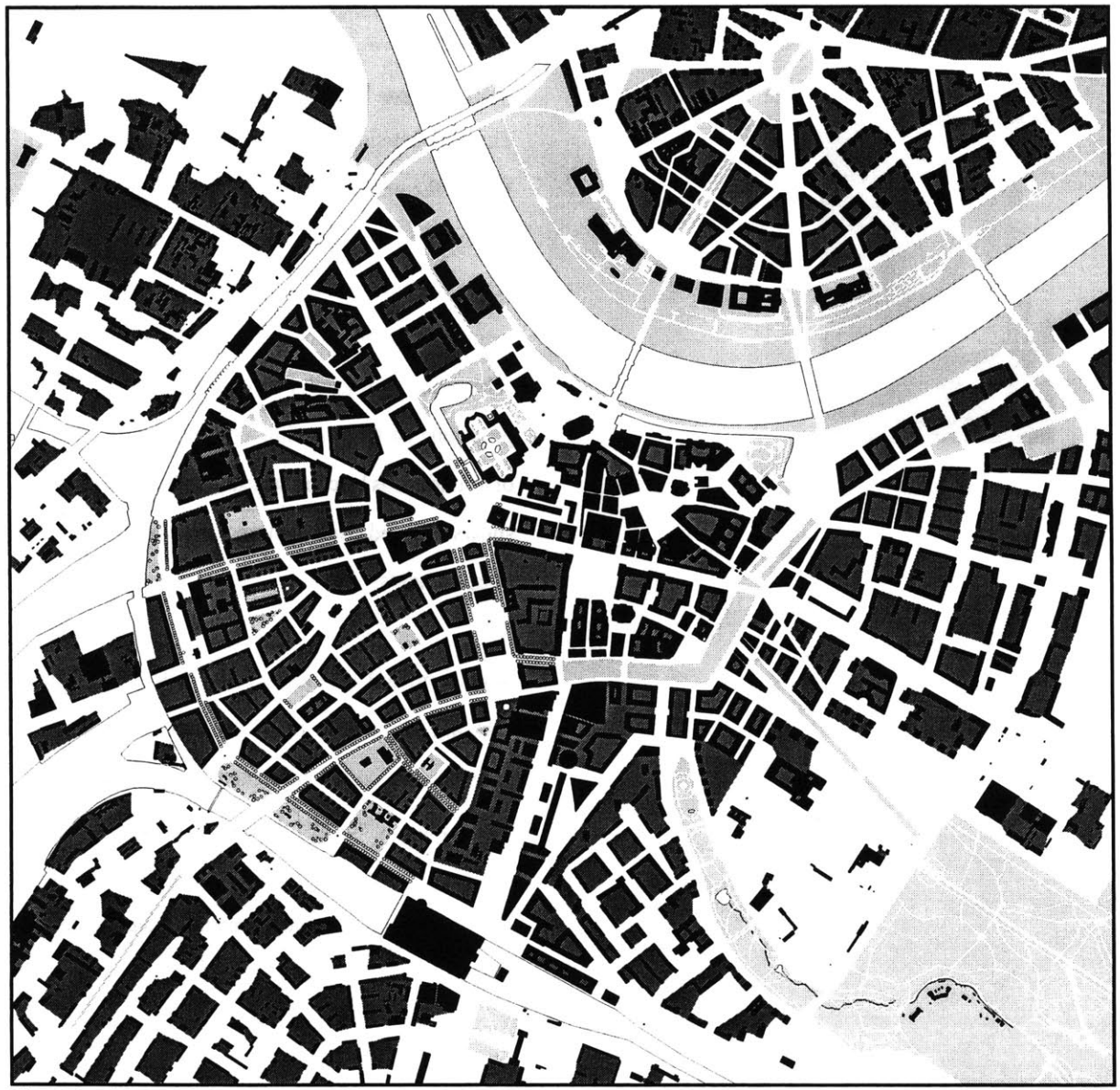


Fig. 5.28 - 1993 Masterplan of Dresden with proposed plan of the Seevorstadt West district. SCALE: 1:20000

Fig. 5.29 - Preliminary massing study.

5.2 Proposed Master Plan

Since this thesis focused on the *Seevorstadt* West district the intent was to redevelop the plan and incorporate it back into the master plan created by the Dresden planning department. Through their process, the architects and planners of the planning department worked on the major public spaces and edges of the city. The areas left untouched were the three housing quarters of the city. At this district scale the criteria was to define the sequences connecting the housing structures currently disconnected by the *Freibergerstraße* and *Budapesterstraße*. One inherent aspect of the redesign of the district was that it had no distinct boundaries. Because of this, the proposed plan of the district challenges the public spaces as designated in the planning department's master plan. This can be seen in the area to the west of the *Altmarkt*. In their plan, they proposed the demolition of the existing perimeter block and replaced them with smaller blocks. The spatial sequence from the

Altmarkt to the *Antonsplatz* into the *Seevorstadt* West district was one that was made stronger in the proposed plan. The other major space that has been redefined is the *Postplatz*. In the analysis it was interpreted as having the function designating the entry and exit to and from the inner core. The other areas examined were main streets: the *Freibergerstraße*, the

Fig. 5.30 - Early diagram showing the block structure and important spaces. The intent for the 26th ring was to adapt it to the new proposed block structure.

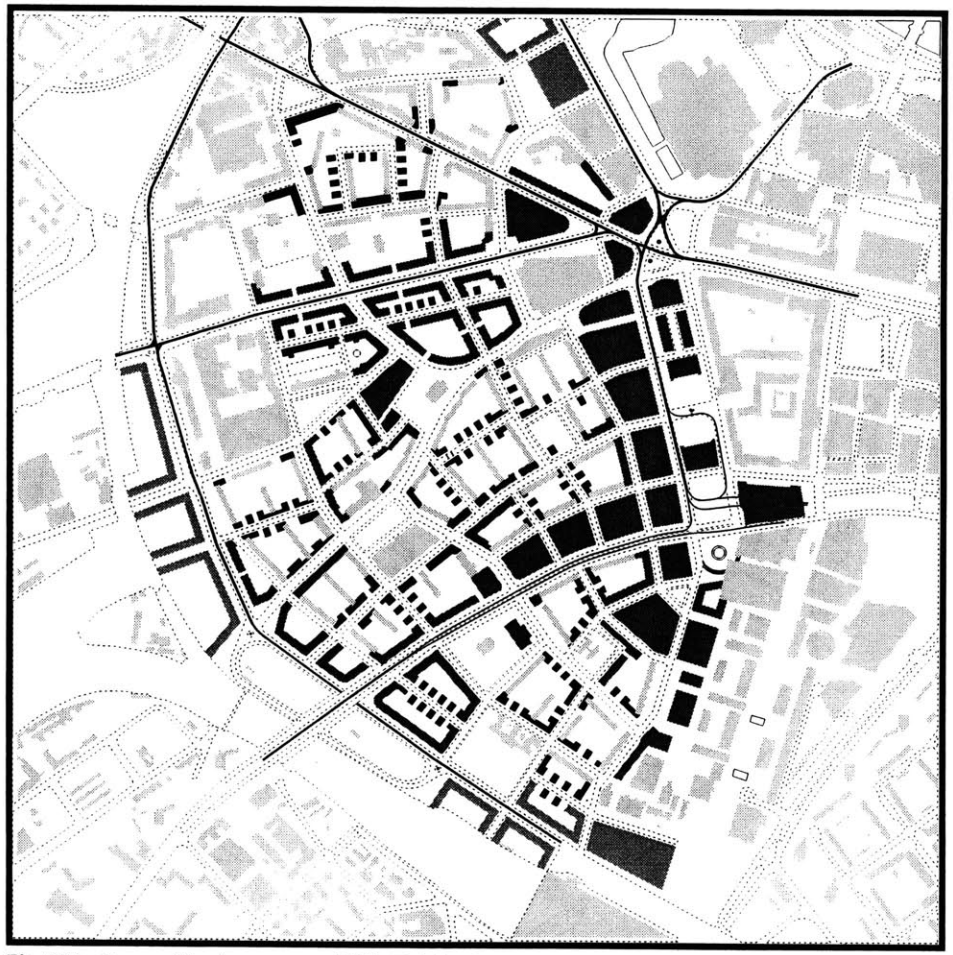


Fig. 5.31 - Proposed land-use map.

Fig. 5.32 - Removed structures.

Budapesterstraße, and the *Ammonstraße* (commonly referred to as the 26th ring). The goal in redesigning the *Ammonstraße* was to emphasize its use as a ring road connecting the feeder roads from outside the ring to the inner core. The type of development designated along this road is primarily light industrial

Fig. 5.33- Diagram showing the block structure and proposed structures added to clarify the difference between the street and courtyard spaces.

with some commercial. With the other roads the same approach was taken treating them as streets lined with commercial or mixed-use development. In an economic sense, the process to accomplish the master plan would follow the current model of private/public development. Since 1989 this model

Fig. 5.34 - Diagram showing the block structure and proposed structures added to clarify the difference between the street and courtyard spaces.

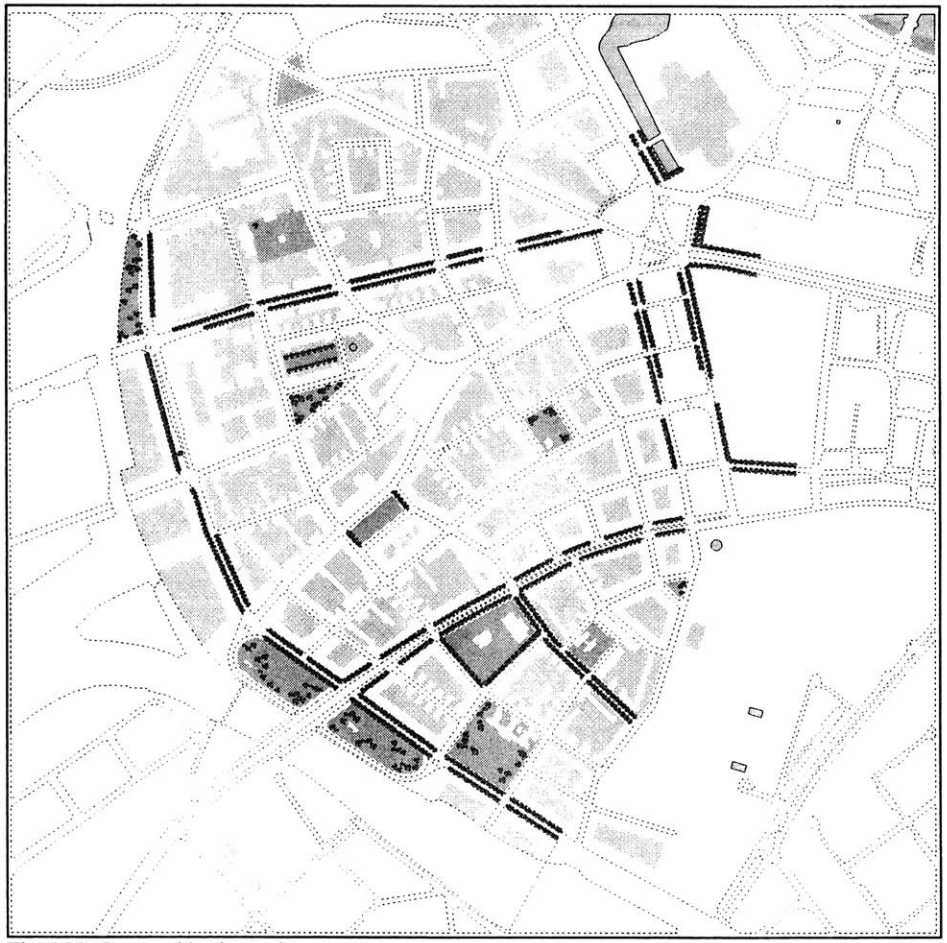


Fig. 5.35 - Proposed landscaped areas.

Fig. 5.36 - Plan of street sequence and primary spaces.

has proven to work extremely well in allowing for the building of public amenities and services, where the funding from the government has been limited.[3]

[3]Hilmar A. von Lojewski. Dresden – Planning and Projects for the Redevelopment of a European City, p. 12.

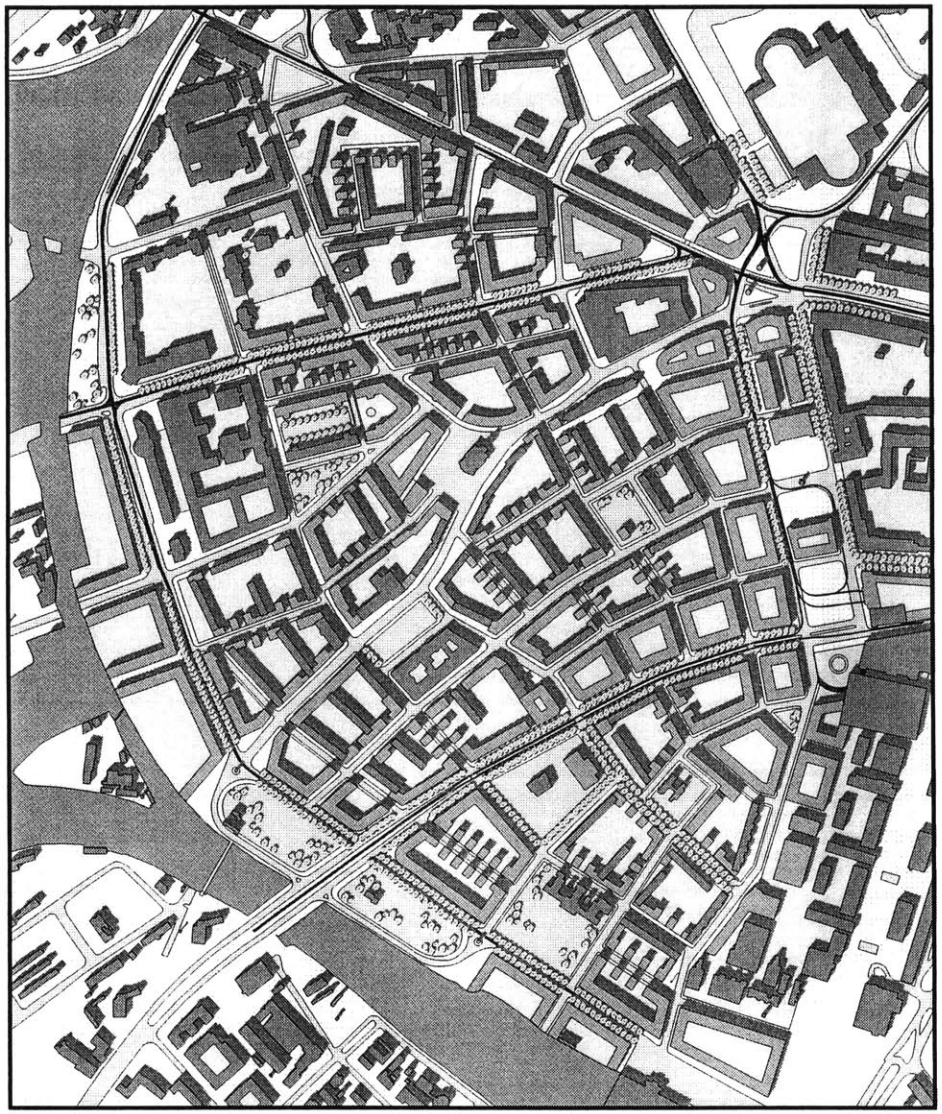


Fig. 5.37 - Proposed masterplan of the Seevorstadt district. SCALE: 1:10000

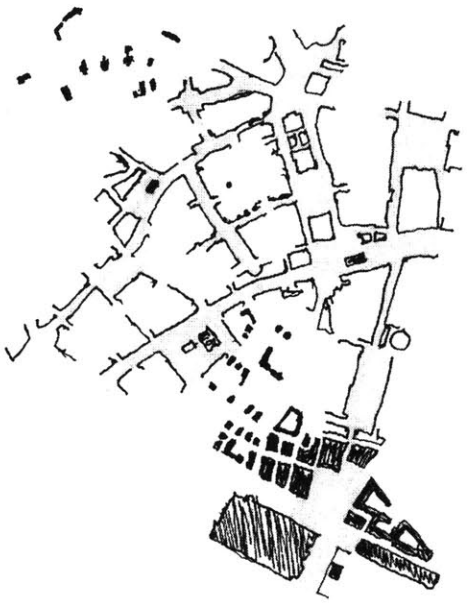


Fig. 5.38 - Diagram showing the new spaces of the district and their connections to the other spaces of Dresden.

Fig. 5.39 - Study showing the new block parcelization.

5.3 Proposed District Plan

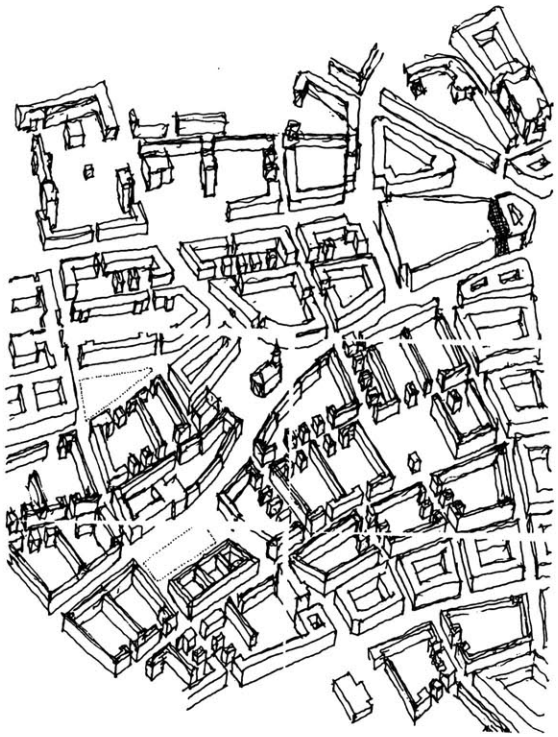


Fig. 5.40 - Massing study the center of Seevorstadt West.

Fig. 5.41 - Three studies from the center space around the *Annekirche*.

At the district level the design continued to follow the intentions established in the proposed master plan. The central space around the *Annekirche* was proposed to be a central business district.[4] It allowed them to determine how development should occur and it aided them in designating sites for the competitions. Its location, which was based on the form prior to the bombing, linked the periphery with the inner core and the northern part of the district with the south.

In the design of the blocks, the intent was to preserve as much of the existing housing structures as possible. The overall block configuration was derived from the numerous studies based on block typologies found in Dresden before and after the war. The level of density, i.e. whether the block is defined by a perimeter structure or detached villa structures, was derived from the types of streets found in the master plan. If a street was more residential in nature then the villas would be employed to give the street edge multiple readings and intern a more relaxed feel. If a street was determined to be commercial in nature, then a more continuous approach would be employed.

[4]This was a common method when the planners drafted the structure plan in 1993. It allowed them to determine how development should occur and it aided them in designating sites for the competitions.

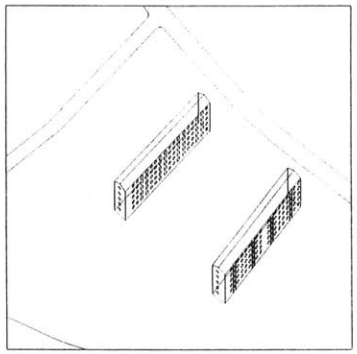


Fig. 5.42 - Existing condition.

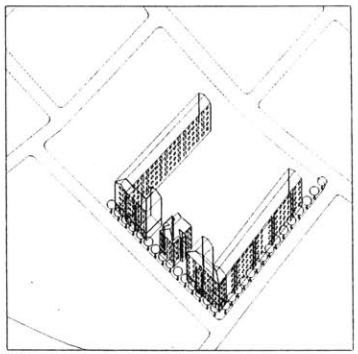


Fig. 5.43 - Proposed continuous types.

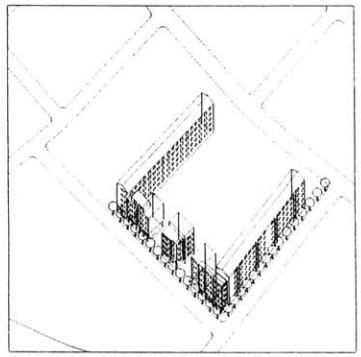


Fig. 5.44 - Proposed discontinuous types.

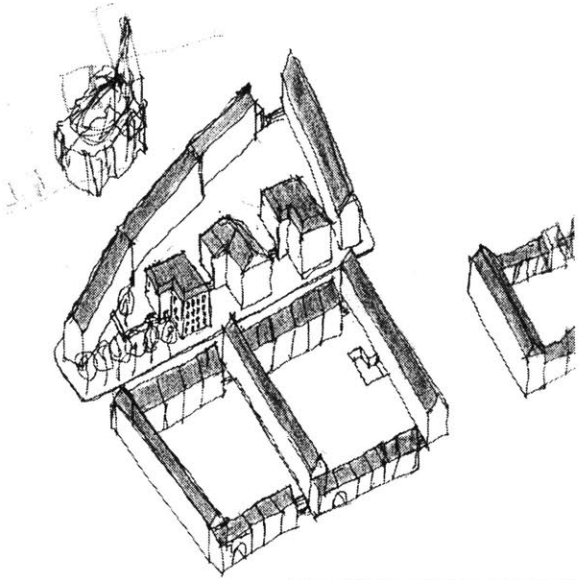


Fig. 5.45 - Study of the unit and block relationship.

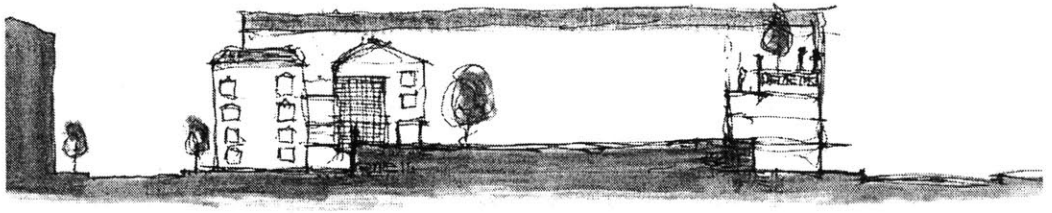


Fig. 5.46 - Perliminary courtyard section.

5.4 Proposed Units

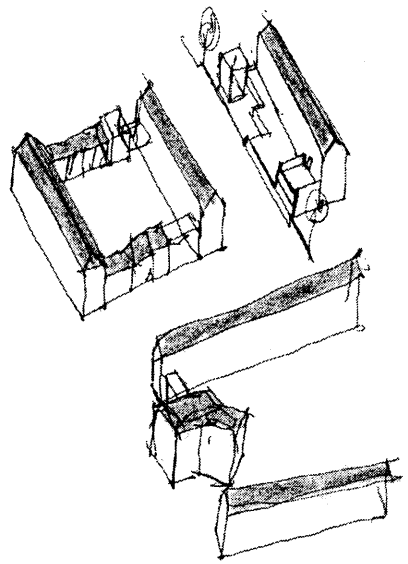


Fig. 5.47 - Studies of the interaction between the proposed and existing structures.

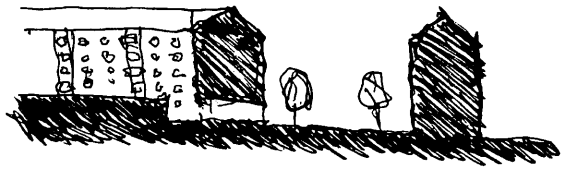


Fig. 5.48 - Section showing relationship between the street, courtyard and underground parking.

The unit design originated from the square footage calculations of new and existing housing. Room sizes aided in understanding the spatial needs of the apartments inhabitants and relationships between the rooms. The criterion that the units were based was how they connected or addressed the existing structures. In some cases, particularly in unit type 1, there would be connections made at angles that are non-orthogonal. In these cases the new space would result in a balcony or storage space. In all cases, the ground floor level would be designated for either retail or public uses by the developers or needs of the building associations. Parking for the structures would be provided either on the street as existing, or in underground garages located within the courtyards of the block.[5]

On the façade of the new apartments several elements must be taken into consideration. As with the early Socialist housing of the 1950's elements such as projections, ornamentation, archways into the courtyard, and ground level definition should be incorporated into the façade of units. This will provide an added level of information at the pedestrian scale to soften the existing structures, which currently lack those elements.

[5]This condition can be found in figures 5.23-5.25 in section 5.2.6 New Housing in Dresden.

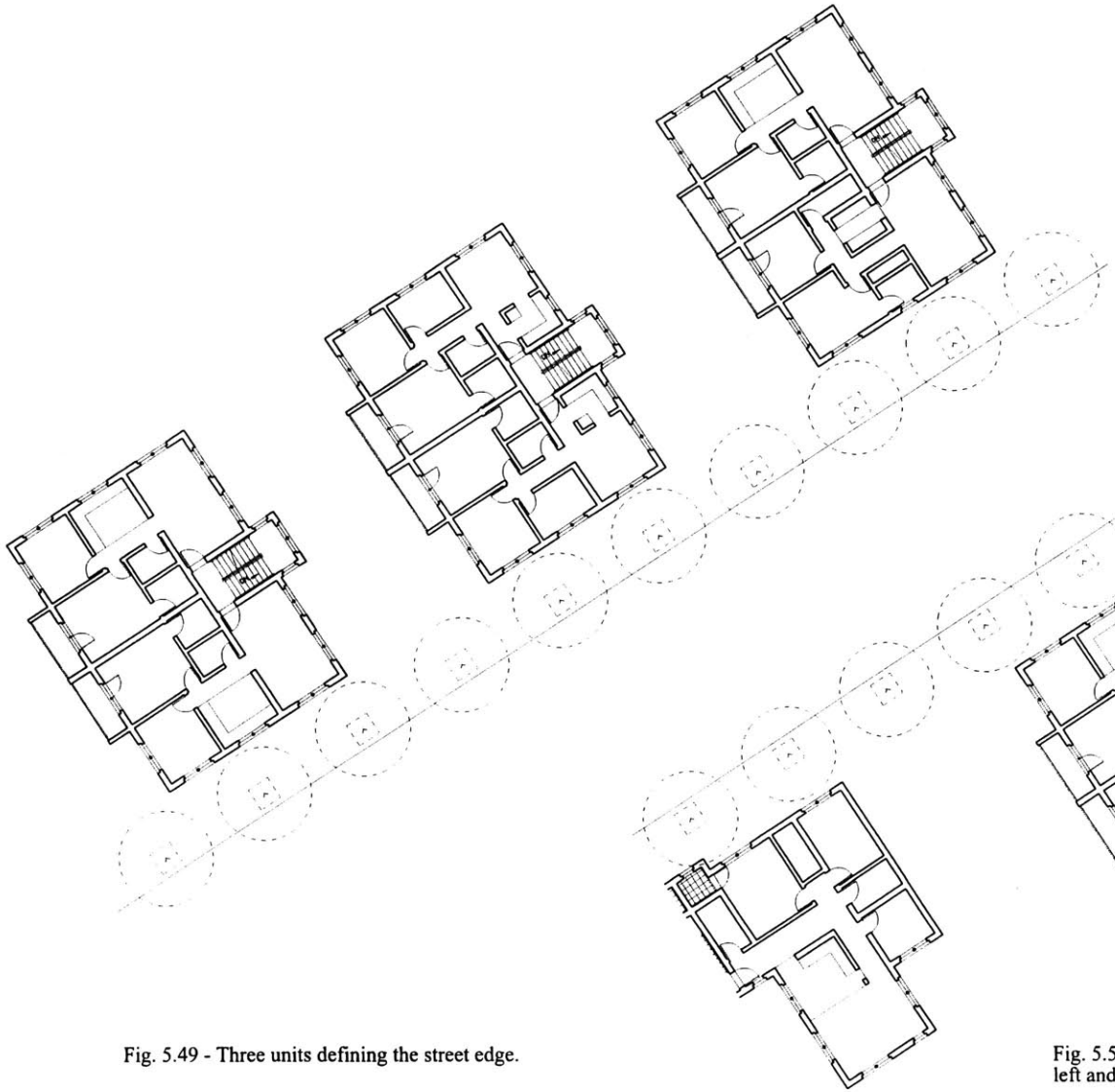


Fig. 5.49 - Three units defining the street edge.

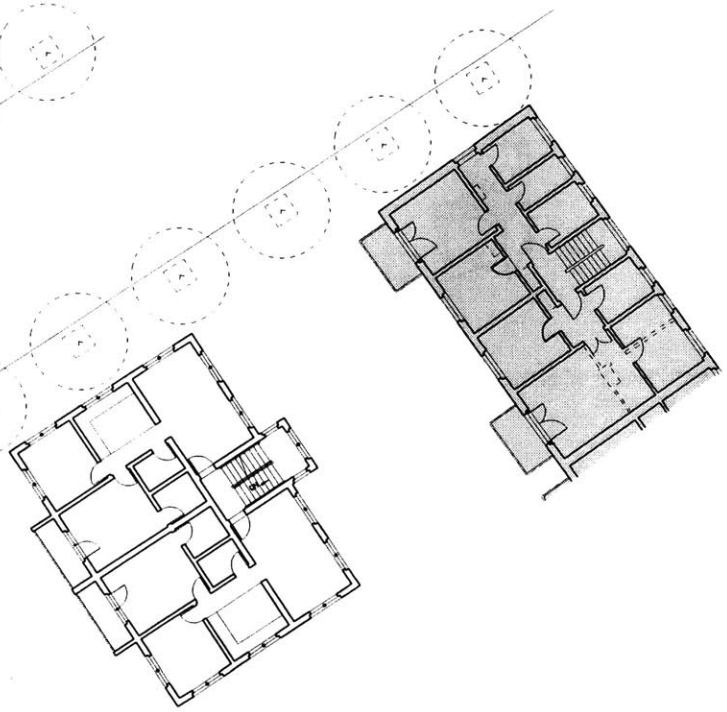


Fig. 5.50 - Unit inserted between a new unit on the left and existing structure on the right.

Scale: 1/32" = 1'-0"

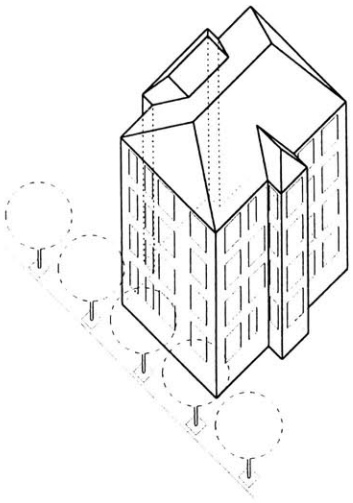


Fig. 5.51 - Design of unit to maintain continuity with the existing structure.

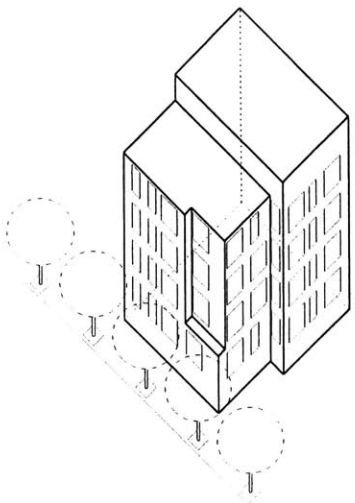
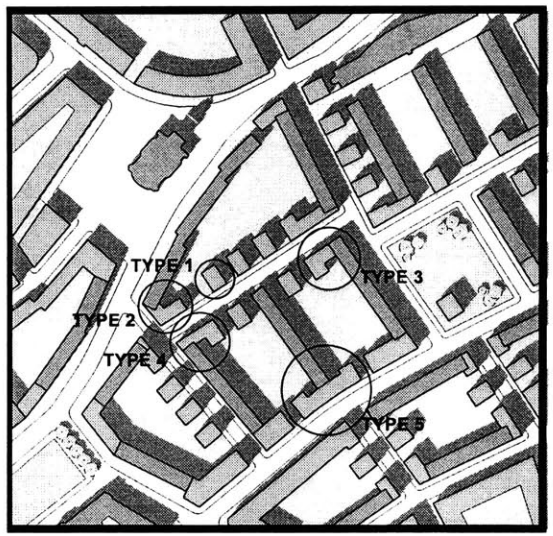


Fig. 5.52 - Design of unit that is discontinuous from the existing structures.

5.4.1 Unit Type 1



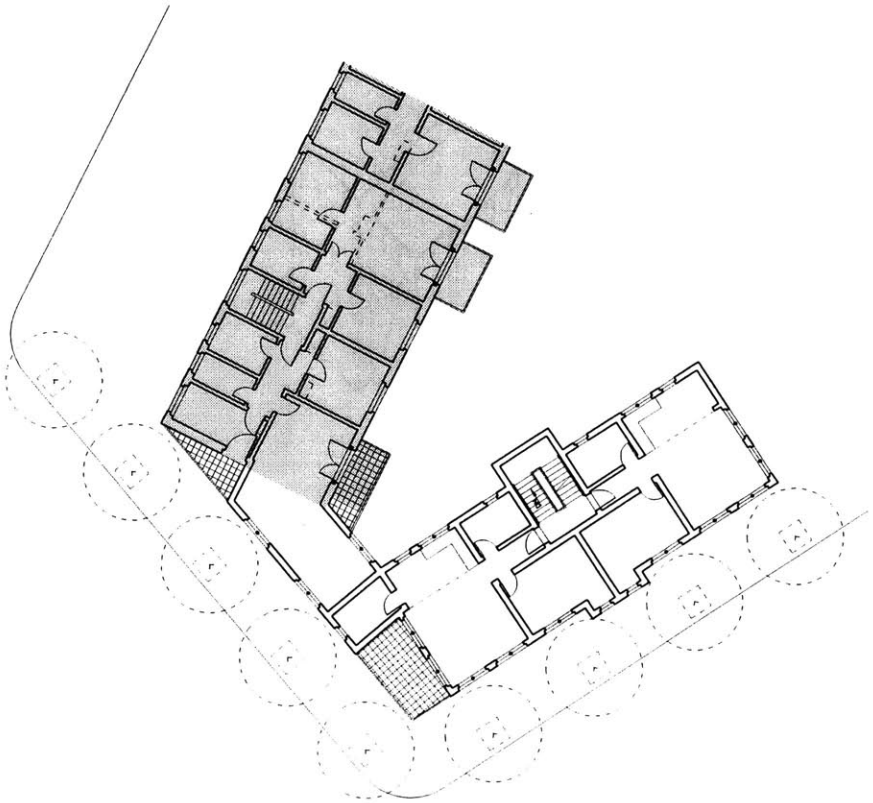


Fig. 5.53 - Plan of the new unit that is connected to an existing housing structure.
Scale: 1/32" = 1'-0"

5.4.2 Unit Type 2

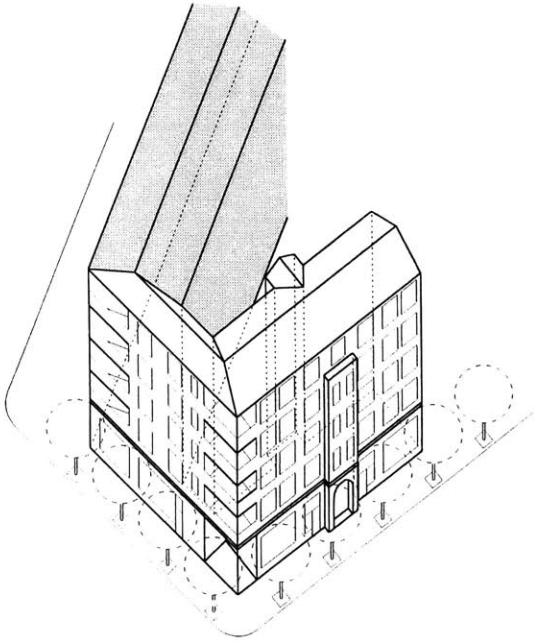


Fig. 5.54 - Design of unit to maintain continuity with the existing structure.

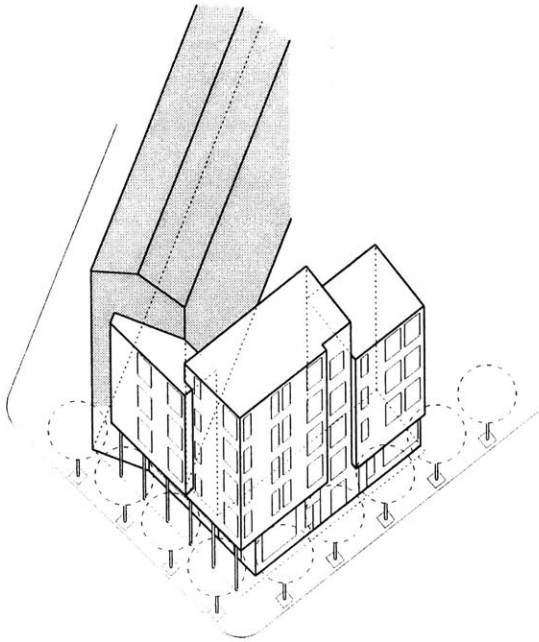
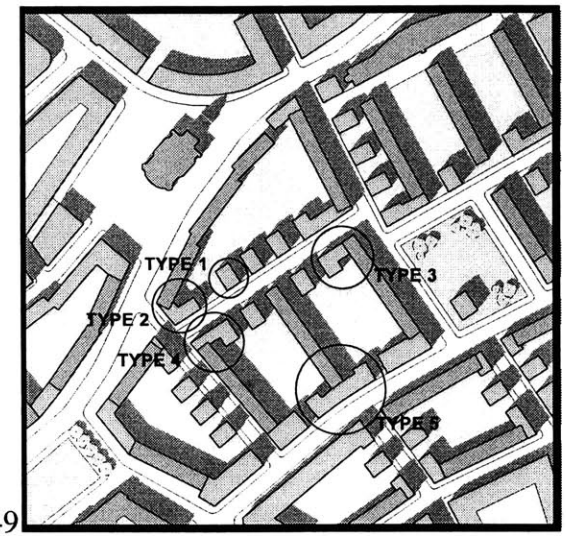


Fig. 5.55 - Design of unit that is discontinuous from the existing structures.



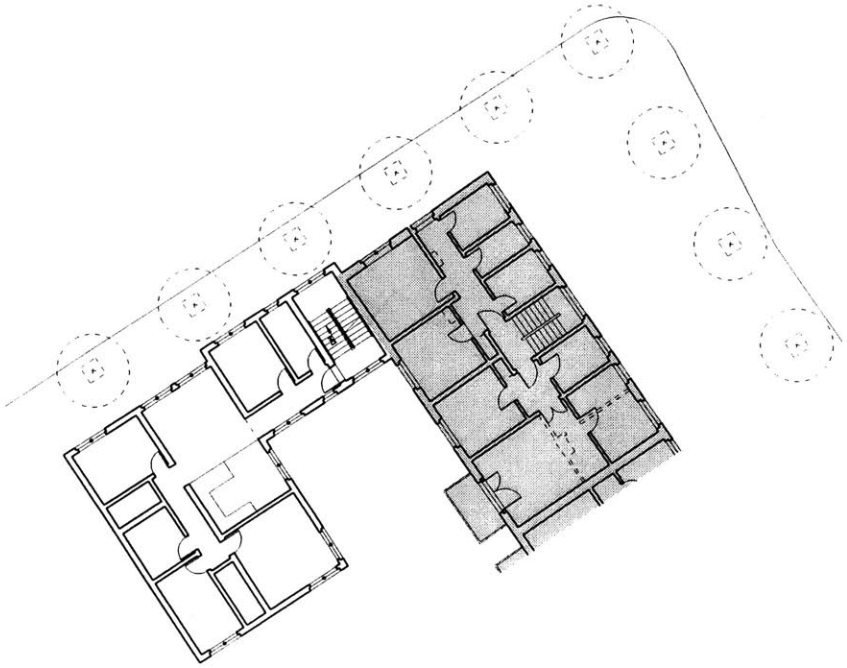


Fig. 5.56 - Plan of unit that is connected to the edge of an existing housing structure.
Scale: 1/32" = 1'-0"

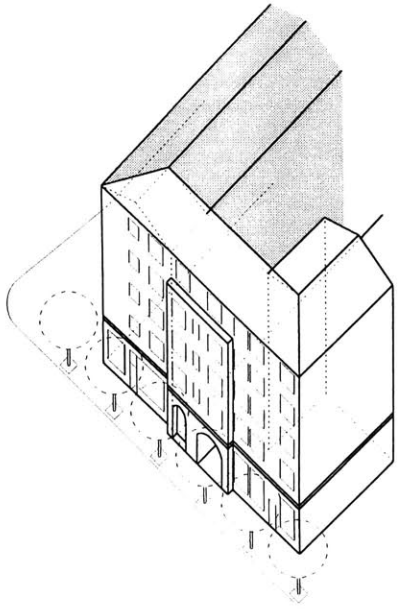


Fig. 5.57 - Design of unit to maintain continuity with the existing structure.

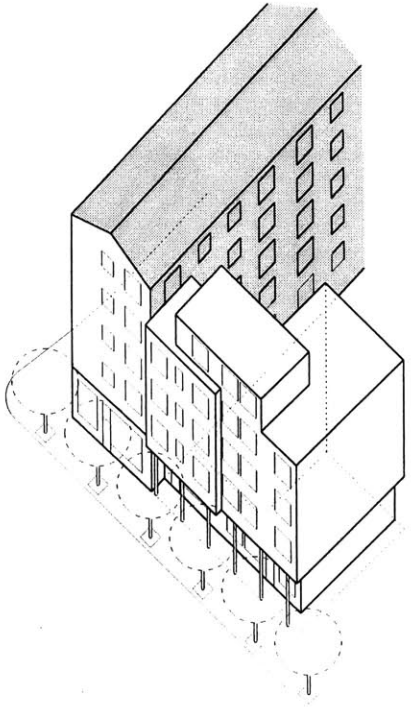
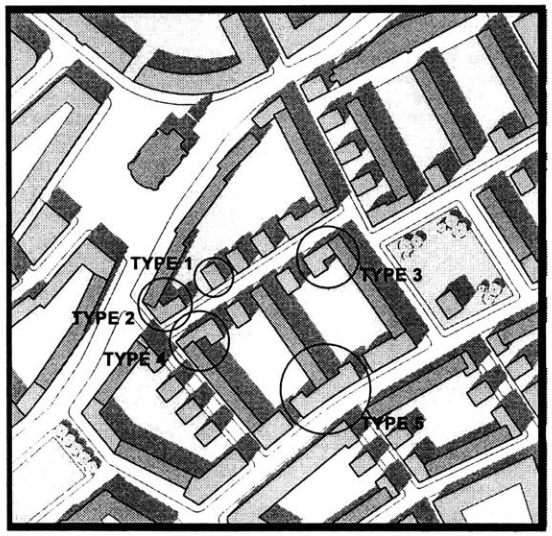


Fig. 5.58 - Design of unit that is discontinuous from the existing structures.

5.4.3 Unit Type 3



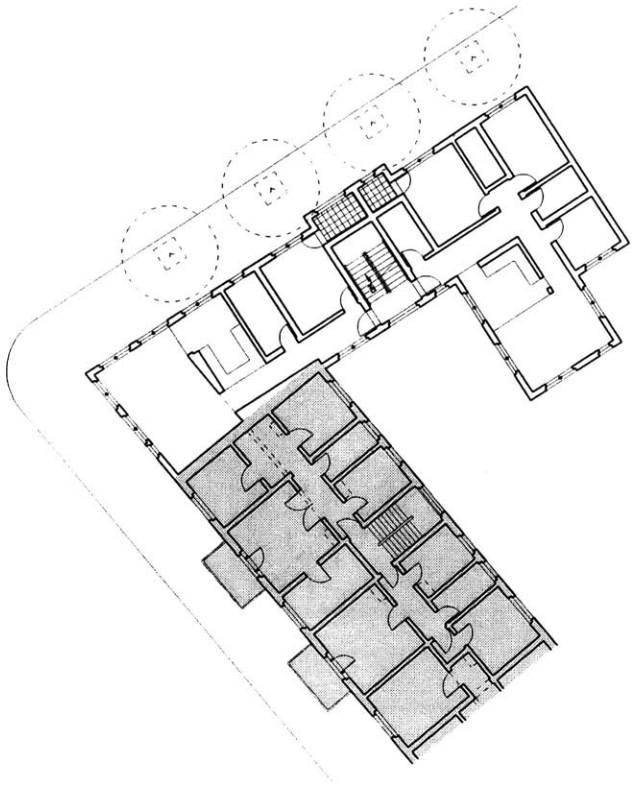


Fig. 5.59 - Plan of unit that is connected at the end of an existing housing structure on a corner. Scale: 1/32" = 1'-0"

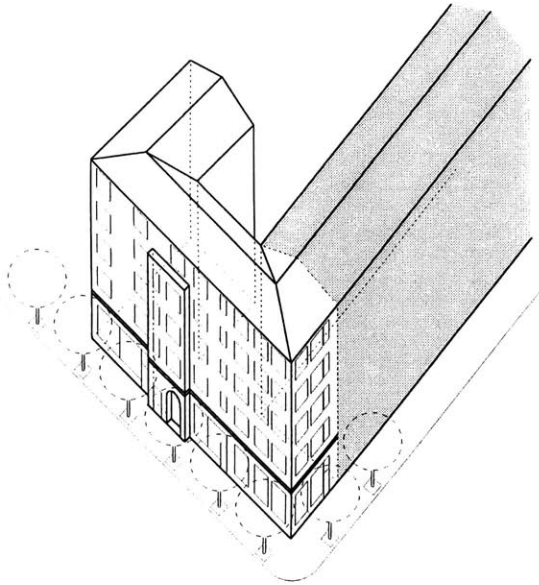


Fig. 5.60 - Design of unit to maintain continuity with the existing structure.

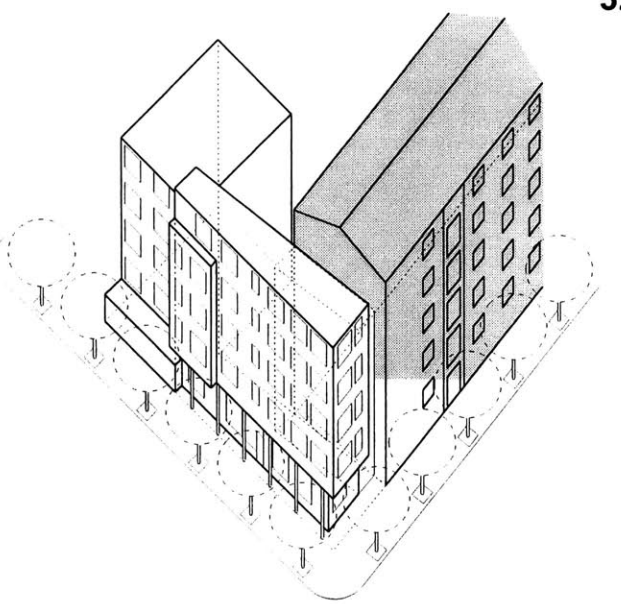
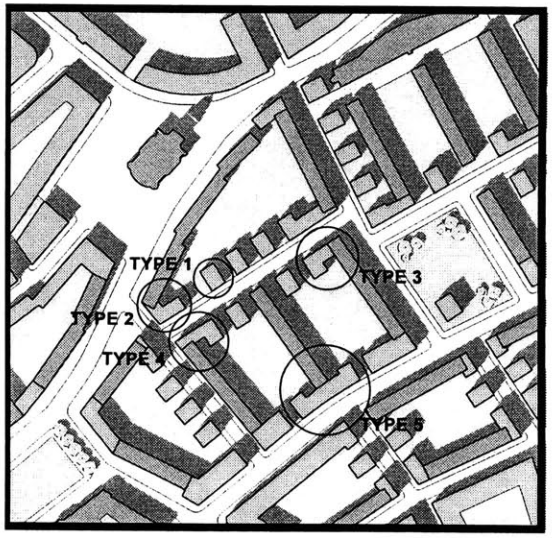


Fig. 5.61 - Design of unit that is discontinuous from the existing structures.

5.4.4 Unit Type 4



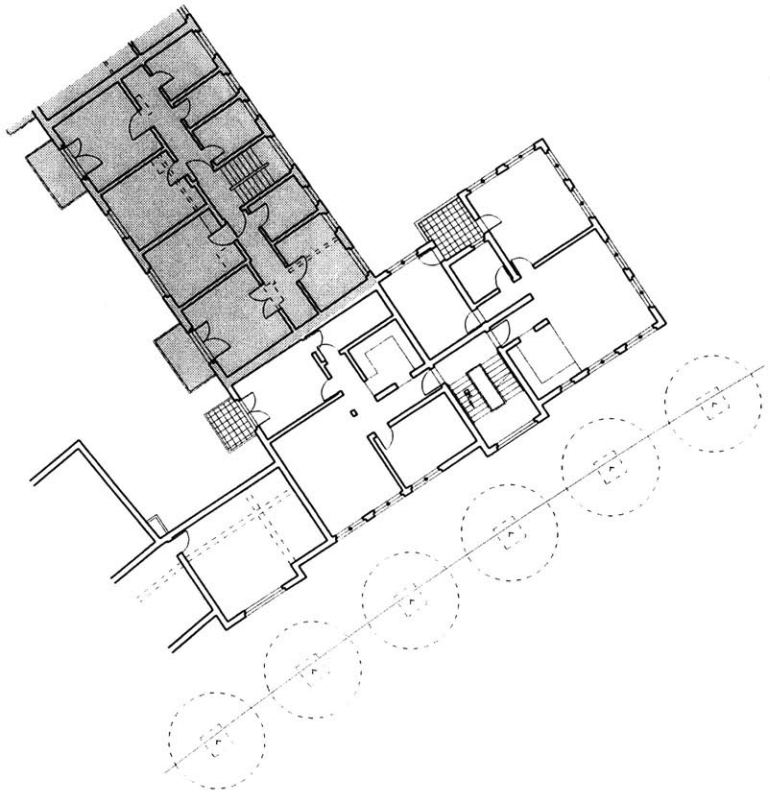


Fig. 5.62 - Plan of unit that is connected at the end of an existing housing structure perpendicular to the street.
Scale: 1/32" = 1'-0"

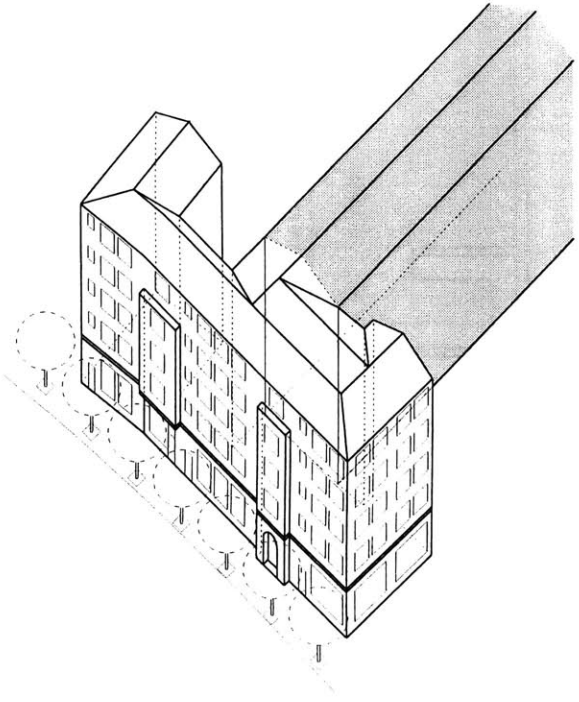


Fig. 5.63 - Design of unit to maintain continuity with the existing structure.

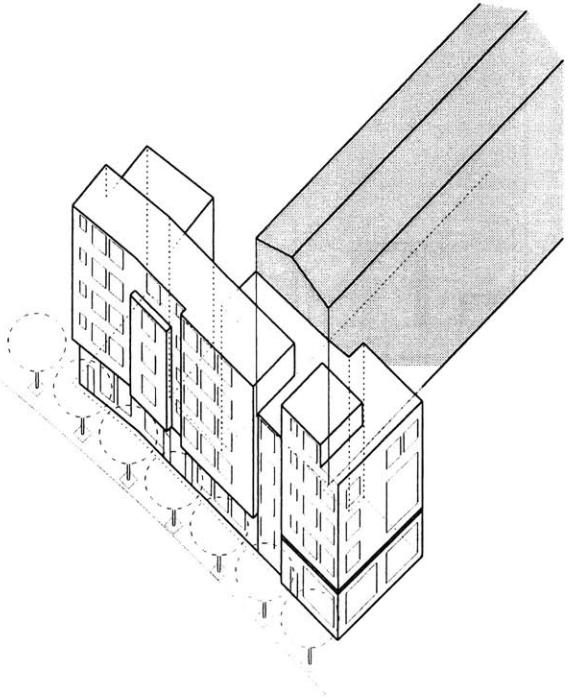
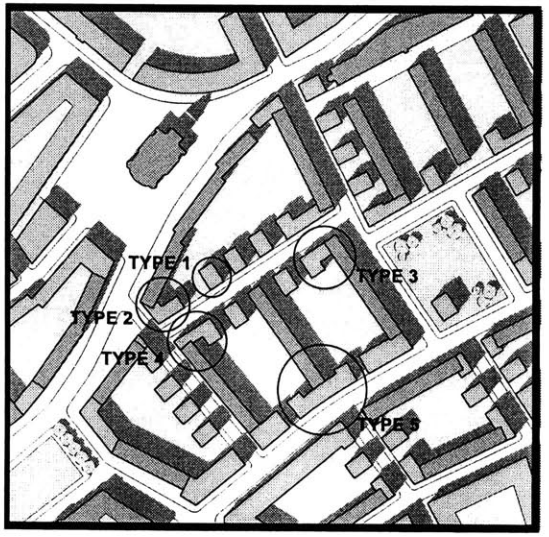


Fig. 5.64 - Design of unit that is discontinuous from the existing structures.

5.4.5 Unit Type 5



5.4.6 Unit Type 6

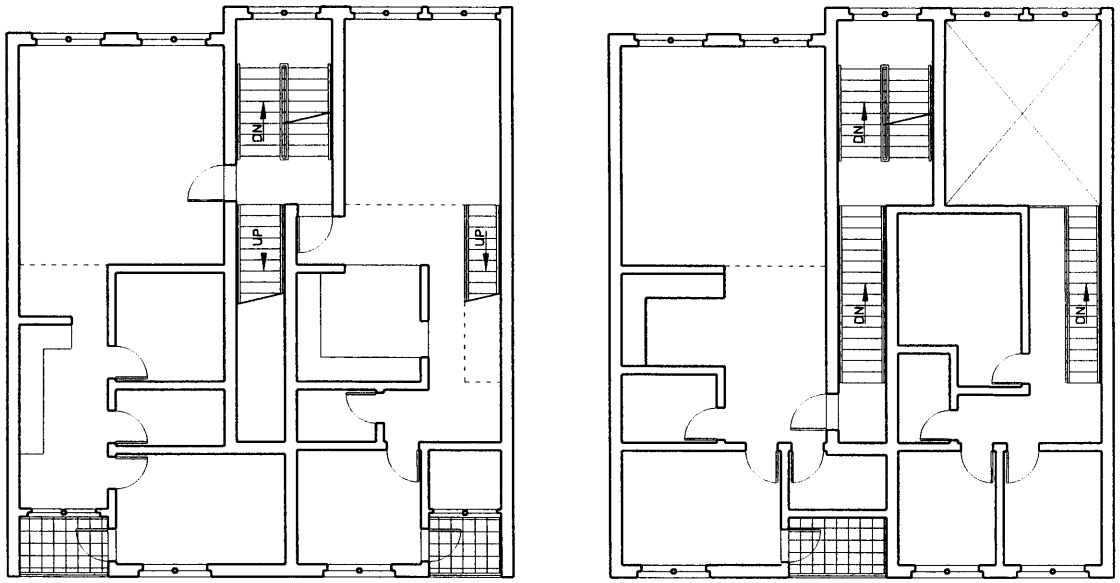


Fig. 5.65 - Example of perimeter type units showing a duplex apartment condition.
Scale: 1/16" = 1'-0"

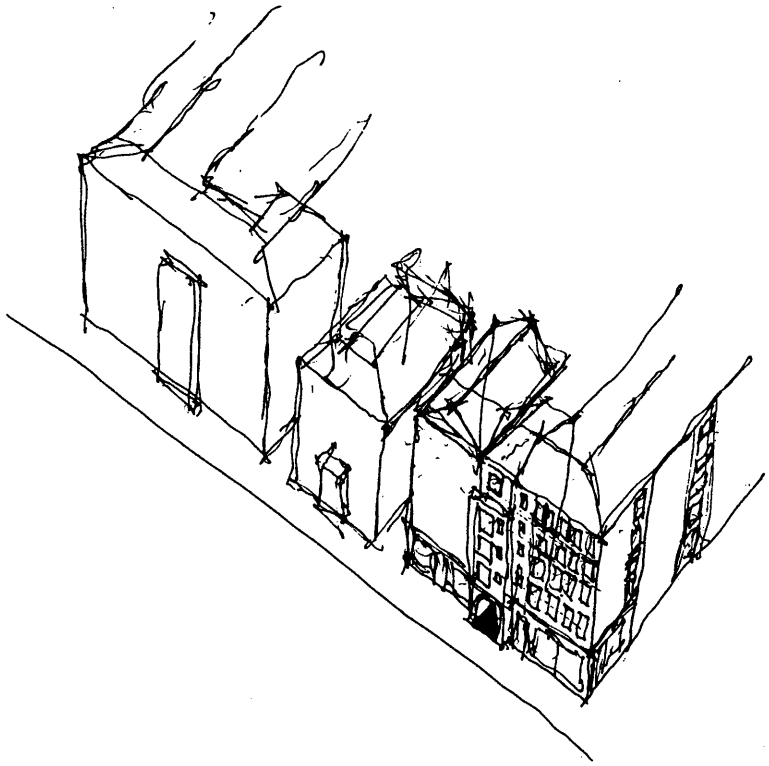


Fig. 5.66 - Preliminary sketch of continuous massing.

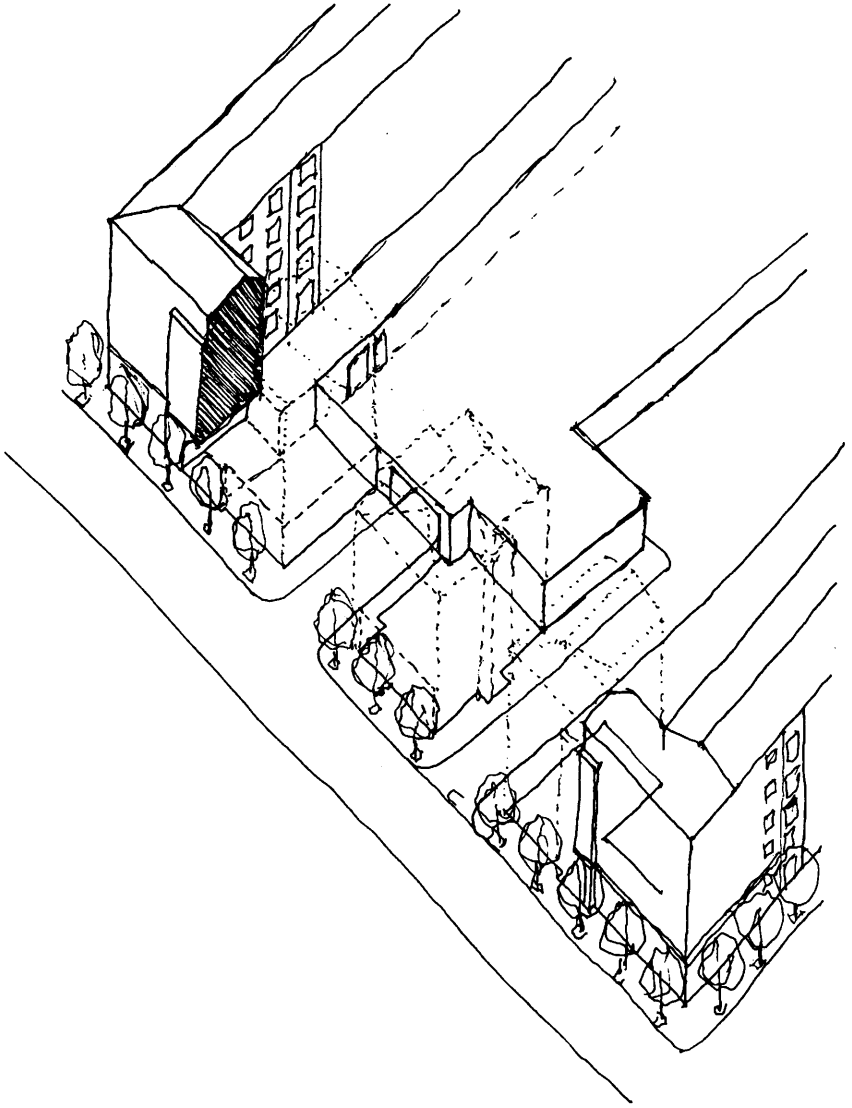
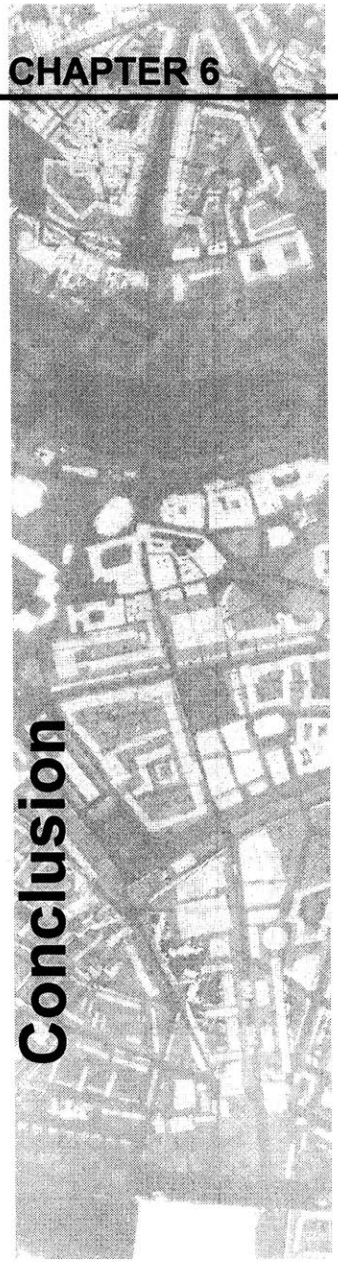


Fig. 5.67 - Diagram showing the vehicular access into the courtyard. The parking can either be surface or underground in the courtyard.

CHAPTER 6



Conclusion

6.1 Conclusion

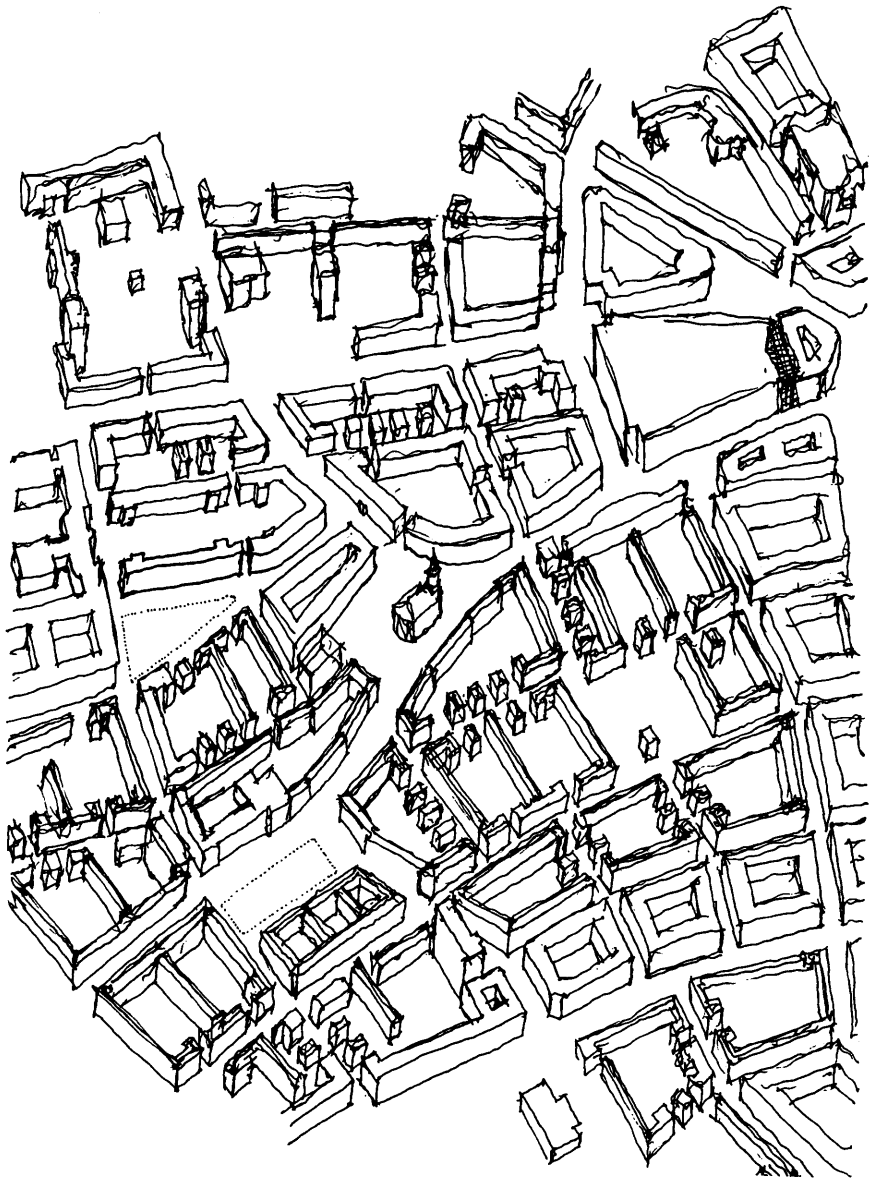
As with any city, the form of Dresden has been changed many times over the past 800 years. The most recent changes in urban form began with changes in ideologies. The modernist and traditionalist architecture groups in Germany expressed their ideas at an architectural scale, which as seen in the historic overview resulted in the modifications of spatial thinking at the urban scale. The strongest lesson learned in this thesis is the unique relationship between architecture and urbanism. In some cases, as with the period between Pre-World War II Dresden and about five years after the bombing, both scales converged smoothly. The resultants were in the form of typologies that resolved traditional and modern styles. In other cases, such as the period during the 1950s and 60s, fragmentation increased as the modern socialist style was preferred by the architects and city planners.

It was demonstrated in Chapter 2 that a resolve could be achieved between old and new, both at an architectural level and the urban city scale. In the design of cities, one must remember to not stay fixed on only one scale. This became most obvious in working out the master plan of this thesis. The concept of the master plan must be based in the reality of building typologies: unit sizes, district space sizes, parcel sizes, and room sizes. These elements help shape the block sizes and patterns in a relationship to the human scale.

Conversely, it would be detrimental if the dwelling structures were designed void of any information of the city context. Essentially, this is the overriding fault in the *Plattenbau* housing. The housing for large numbers of residents was intended to work in all situations, without relationships to outdoor spaces, other

Plattenbau, and the rest of the city has failed. The unit level design in this thesis was worked through in conjunction of the whole city. The concept of unit location and placement without knowledge of existing adjacent blocks and structure would result in forms that fail to incorporate any larger relationships. It was important to design the units referring back to the city scale sequence of space and programmatic elements.

In hindsight, these statements seem so simple and easy to incorporate, but in actuality are very difficult to realize. Understanding Dresden's form and history was the biggest task in finalizing a master plan. It must not be overlooked that economics and progress of development play a large role in the implementation of the plan. In the district level the CBD (Central Business District) would provide the financial structure to facilitate growth. Even more local is the public/private development. A developer with private intentions of a parcel can provide public facilities for the adjacent residents of the rest of the block. These could be in the form of recreation or community services. If each of these things are pursued rigoriously the Dresden planning department can indeed realize their master plan, not only consisting of large gestures, but also including finer detail local redesign as well.



ARCHITECTURAL MOVEMENTS IN GERMANY

JUGENDSTIL (1900-1915)[1]
Josef Maria Olbrich
Peter Behrens
Hans Poelzig

DEUTSCHER WERKBUND (1907)[2]
Friedrich Naumann
Ferdinand Avenarius
Eugen Diederichs
Hermann Muthesius

Additional Members[3]
Paul Bonatz
Josef Maria Olbrich
Peter Behrens
Paul Schultz-Naumburg
Heinrich Tessenow

[1] Lane, Barbara Miller, *Architecture and Politics in Germany, 1918-1945*, p. 19.
[2] e, Barbara Miller, *Architecture and Politics in Germany, 1918-1945*, p. 27.
[3] Lane, Barbara Miller, *Architecture and Politics in Germany, 1918-1945*, p. 19.

MODERNISTS

BAUHAUS (1919)[4]
Mies van der Rohe
J.J.P. Oud
Le Corbusier – 1910 – trip to Germany
Walter Gropius
Bruno Taut

1. Germany – Walter Gropius and Bruno Taut
2. Dutch – De Stijl – J.J.P. Oud and Theo van Doesburg
3. French – Le Corbusier

"RING GROUP" (1926)[5]
Walter Gropius
Bruno Taut
Wagner

Mies van der Rohe
J.J.P. Oud
Le Corbusier
Ernst May

CIAM (1928)
England
France
Italy
Germany

[4] Diefendorf, Jeffry M., *In the Wake of War : the Reconstruction of German Cities after World War II*, p. 46, and Lane, Barbara Miller, *Architecture and Politics in Germany, 1918-1945*, p. 27,53.
[5] Diefendorf, Jeffry M., *In the Wake of War : the Reconstruction of German Cities after World War II*, p. 77, and Lane, Barbara Miller, *Architecture and Politics in Germany, 1918-1945*, p. 111, 127.

TRADITIONALISTS

HEIMATSCHUTZ (1904)[6]
Konrad Nonn
Paul Schultz-Naumburg
Emil Högg
Paul Bonatz
Paul Scmittenhenner

KAMPTBUND DEUTSCHER ARCHITEKTEN UND INGENIEURE (1932)[7]

Deutscher Werkbung
Bund Deutscher Architekten

Paul Schultze-Naumburg
Gottfried Feder

"BLOCK GROUP" (1934)[8]

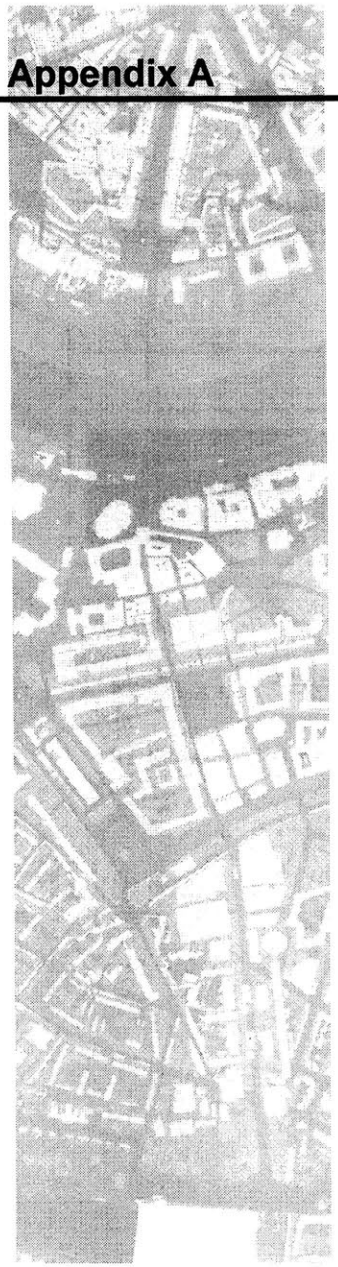
Paul Schultz-Naumburg
Paul Bonatz
Paul Scmittenhenner

REICHSKULTURKAMMER IN GOEBBELS'S PROPAGANDA MINISTRY (1935)[9]

Absorbed Kamptbund deutscher Architekten und Ingenieure

[6] Diefendorf, Jeffry M., *In the Wake of War : the Reconstruction of German Cities after World War II*, p. 49, and Lane, Barbara Miller, *Architecture and Politics in Germany, 1918-1945*, p. 128.
[7] Diefendorf, Jeffry M., *In the Wake of War : the Reconstruction of German Cities after World War II*,p.51.

Appendix A

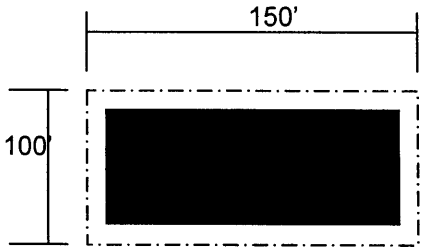


[8] Diefendorf, Jeffry M., *In the Wake of War : the Reconstruction of German Cities after World War II*, p. 47, 50.
[9] Diefendorf, Jeffry M., *In the Wake of War : the Reconstruction of German Cities after World War II*, p. 51.

Urban Density Statistics Formulas

The following statistic examples apply to continuous fabric only; i.e. without squares, parks, etc.

Private / Public:



Total Area (TA) = 100' x 150' = **15,000 SF**
100%

Private Area (PR)= 70' x 120' = **8,400 SF**
56%

Public Area (PB) = difference = **6,600 SF**
44%

Gross Coverage:

Total Area (TA) = 100' x 150' = **15,000 SF**
100%

Building Coverage (BC) = **5,000 SF**
33%

Public Area (PR) = **6,600 SF**
44%

Private Open Space (PBO) = **3,400 SF**
23 %

Net Coverage:

Private Area (PR)= 70' x 120 ' = 8,400 SF
100%

Building Coverage (BC) = 5,000 SF
60%

Private Open Space (PBO) = 3,400 SF
40%

Gross FAR:

Total Area (TA) = 15,000 SF

Building Area (BA)(Coverage x # of Floors) = 20,000 SF

Gross FAR = BA/TA = 1.33 GFAR

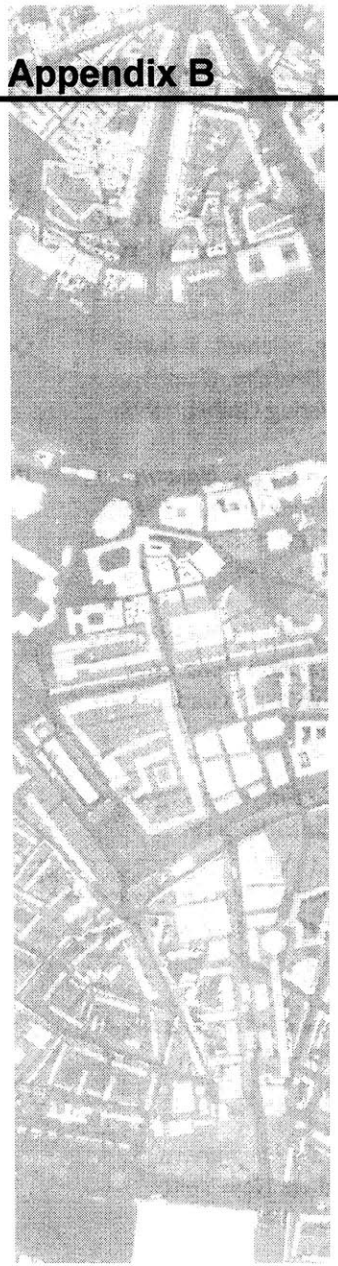
Net FAR:

Private Area (PA) = 8,400 SF

Building Area (BA) = 20,000 SF

Net FAR = PA/BA = 2.4 NFAR

Appendix B



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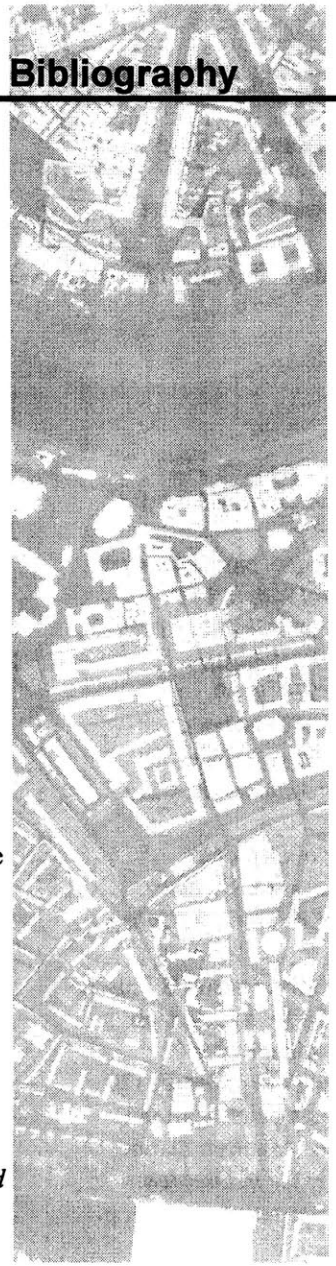

Chapter 1

1.1 1990 Air View of Dresden. Dresden aus der Luft, p. 22.

1.2 1930's Figure Ground Plan. Robert Shoaff, 1999.

1.3 1994 Figure Ground Plan. Robert Shoaff, 1999.

Chapter 2

2.1 Political map of Germany in 1789. Eugene K. Keefe, *Area handbook for East Germany,* p. 8.

2.2 Ringstrasse of Cologne. Norbert Bonatz, *Paul Bonatz, 1877-1956,* p. 139.

2.3 Ringstrasse of Vienna. Giorgio Piccinato, *La costruzione dell'urbanistica. Germania, 1871-1914,* p. 99.

2.4 Canaletto painting of Dresden's Neuemarkt. Stefan Kozakiewicz, *Bernardo Bellotto: Volumne II: Catalogue.* p. 133.

2.5 Canaletto painting of Dresden's Neuemarkt. Kozakiewicz, Stefan. *Bernardo Bellotto: Volumne II: Catalogue*, p. 139.

2.6 Lithograph of the Belvedere on Brühlsche Terrace around 1860 by Hans Anton Williard. Manfred Zumpe, *Die Bruühlsche Terrase in Dresden*, p. 170.

2.7 Carl August Richter's painting of the Bruühlsche Terrace. Manfren Zumpe, *Die Bruhlsche Terrasse in Dresden.* Berlin: Verlag fur Bauwesen, GmbH, p. 159.

2.8 Urban housing that creates a uniform street with distinct horizontal subdivisions. Bernhard Geyer, *Das Stadtbild Alt-Dresdens: Baurecht und Baugestaltung*, p. 11.

2.9 Typical urban housing in Dresden from the 18th century. Bernhard Geyer, *Das Stadtbild Alt-Dresdens: Baurecht und Baugestaltung*, p. 28.

2.10 Development of Dresden's urban housing. Bernhard Geyer, *Das Stadtbild Alt-Dresdens: Baurecht und Baugestaltung*, p. 8.

2.11 Steinhorst Estate by Paul Schultze-Naumburg done in 1910. Barbara Miller Lane, *Architecture and Politics in Germany, 1918-1945*, p. 17.

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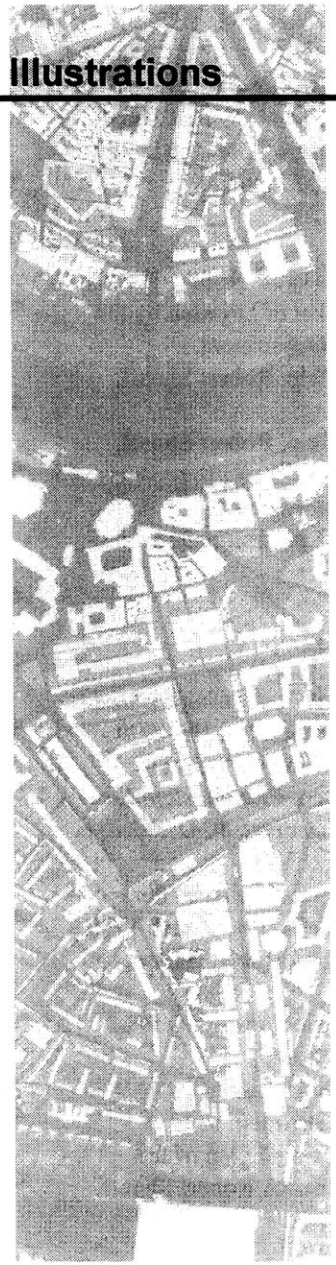

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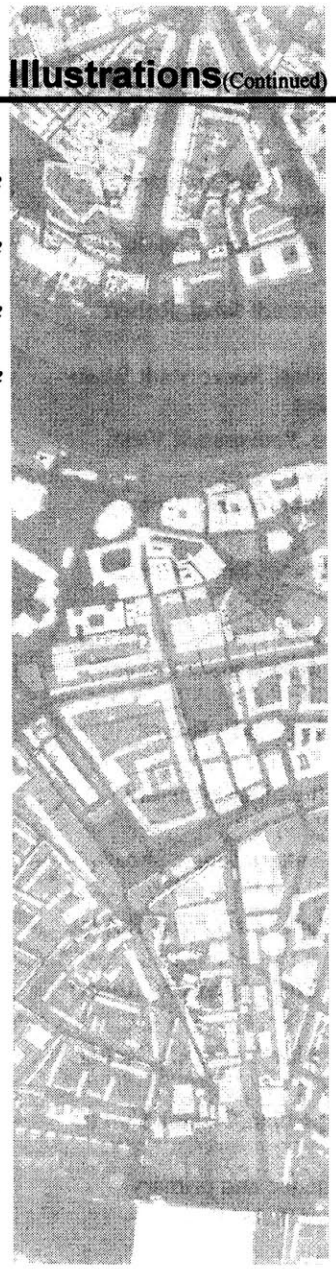

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