

The Concepts of City Centres before and after World War II

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The principal task of architects and city planners of the early 20th century was to counteract the drawbacks of the 19th century city and to work out a concept of a healthy city, while in the interwar period the crucial issue was living in a functional city. As a result of the CIAMs (International Congresses of Modern Architecture), four main functions of the city were identified, i.e.: living, working, recreation and circulation. Before WWII, the issue of the centre of the modernistic functional city was not developed well enough to become a separate topic of any gathering of the CIAM, but was present in the thoughts and tasks of architects. I am going to reduce the observation of how awareness of the fifth function of the modernistic city was born to subjectively selected concepts of city centres, mainly those of capital cities, since it was them that created the need for developing centres with complex functional and representative programmes, in a new, modernistic spirit.

According to present concepts, a city centre is usually a discrete area of purpose-made and composed urbanistic form. In this perspective the term "centre" does not mean "downtown"¹. As far as functional aspect is concerned, city centres are defined as areas of high concentration of centre-creating service facilities characterised by, at least, city-wide impact area².

Tracing the concepts showing how the modernistic city centre was being shaped, it must be noted that previous periods also created their own models of arranging central areas of the city. In the Antiquity it was the agora and the forum, in the Middle Ages – the market

square, in the modern times – the square and the main street. The 20th century did not reject these achievements entirely, but adjusted these forms to modern times. Historical definitions and connotations were highly valued, but adopted in spatial and functional forms very remote from their original meaning.

City centres as places of concentration of certain human activities could have many functions, or they were characterized by segregation of functions or by specialisation. Thus there were trade, cultural, religious, administrative, service or entertainment centres. A city could and still can have several centres³. In the past their specialization developed in an uncontrolled manner. In the 19th century the centre could be squares, whose functions specialised spontaneously, becoming administration, stately or commercial, creating a cooperating system, even though not planned. That was the case with Warsaw in the 19th century. In the 20th century, when city-planning became a science, a skill and art taught at universities, controlled city development and centre planning started to dominate. In the past, there were both times of spontaneous development of city centres and times of planning them according to worked-out principles, e.g. Roman forums. Similar stages of the maturing of the form of city centres can be also noticed in other periods.

The concepts of the 20th-century city centre were shaped as a result and emanation of a modernistic model of a functional city, whose characteristic features were defined by the 1933 Athens Charter. Definitions of the city centre stressed the need for the city centre to match a hierarchic concept of functional city as

1. Chmielewski Jan, *Teoria urbanistyki w projektowaniu i planowaniu miast*, Warszawa 2001, p. 170

2. Maliszowa Barbara, *Śródmieście*, Warsaw, 1974, p. 13

3. Chmielewski J., op. cit., p. 216

late as in the late 20th century⁴.

In the late 19th and early 20th centuries a concept of healing the situation of over-populated 19th-century cities emerged, which was essential for creating a model city and city centre between the two great wars: the concept of Ebenezer Howard's garden city (first published in 1898), the concept of Tony Garnier's industrial city (worked out in 1901-1904, published in 1917), the concept of Clarence A. Perry's neighbourhood unit (presented in 1923). Before the concept of the functional city, based on these ideas, began to take shape, the impetus important for the creation of a European concept of the centre came from the United States of America, i.e. the practice of uncontrolled concentration of high buildings as the way of concentrating different functions, accentuating the centre in the city silhouette and the way of arranging its space. European architects did not accept chaotic accumulation of sky-scrapers in American cities, but appreciated the potential of such buildings in modernisation of over-populated cities, their centres in particular. Thanks to the concentration of functions, the sky-scraper made the best use of the land possible as well as opened the space around the building.

These rational calculations coincided with the domination of expressionism, early Modernism in architecture after WWI, marked by the love for forms referring to shapes created by Nature, like mountains, rocks, crystals, lofty volumes with articulated contours resembling the steeples of Gothic cathedral – this is what American towers looked like at that time. Expressionists, ideologically engaged in the process of modernisation of the capitalist city, regarded crystal as the symbol of truth and the ideas of Enlightenment, the belief in enlightenment and education of the people. This led directly to the idea of "architecture of light and glass" in the centre.

Bruno Taut's visions contained in the book *Stadtkrone – The City Crown*, published in 1919, were extremely important for spreading the

concept of the high building as an architectural and social method of creating the city centre. About 1920, numerous concepts of tower buildings were created, designed to modernize the centres of European cities. Max Berg designed such buildings for the city of Wrocław. For Berlin, tower buildings were designed by e.g. Hans Scharoun, Bruno Möring, Mies van der Rohe and Otto Kohtz; the latter outlined a vision of developing a state administrative centre – a tower office building next to Reichstag (Fig. 1)⁵.

By devising (in 1922) the concept of a Contemporary City for 3 million inhabitants (Fig. 2, 3), Le Corbusier made a creative synthesis of the idea of the Garden City and a concentration of high-rise buildings in the city centre. The transportation system was based on the cruciform intersection of thoroughfares-axes, with the main



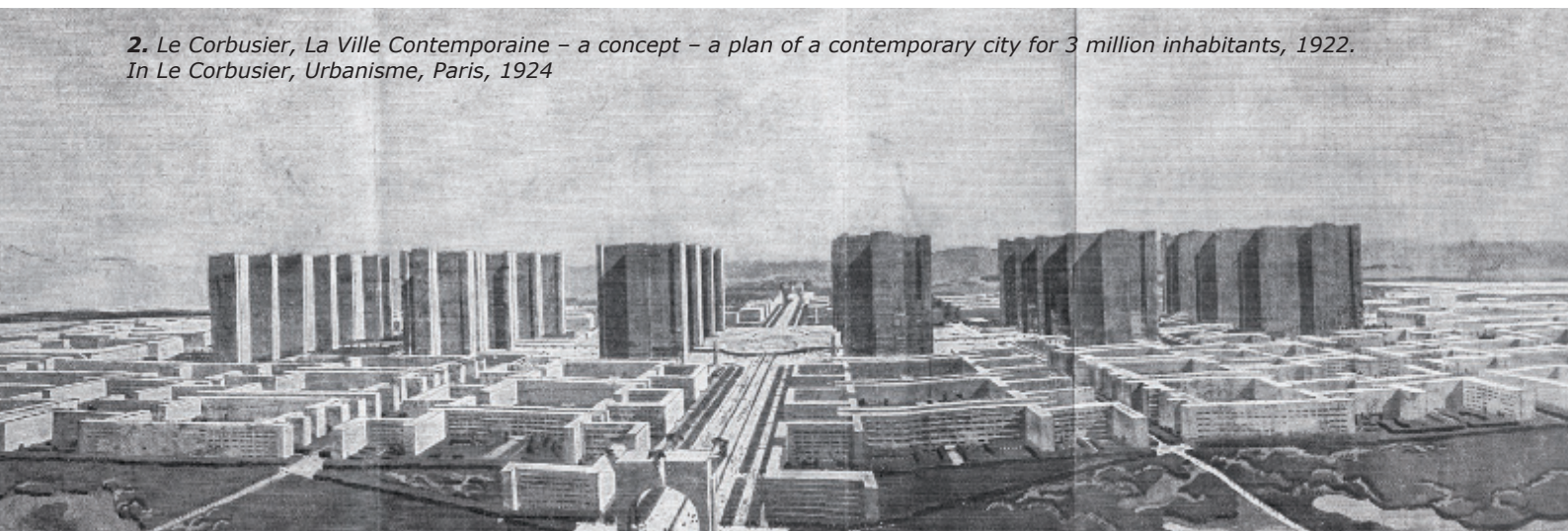
1. Otto Kohtz, design of the 'Reich House' at Royal Square in Berlin, 1920. Architekturmuseum der Technische Universität Berlin. Universitätsbibliothek. Inv. Nr 9065

transportation hub for the road, rail, air and pedestrian traffic. Around the transportation hub there were to be tower office and hotel buildings, constructed on several levels, repeatable, regularly set within green spaces.

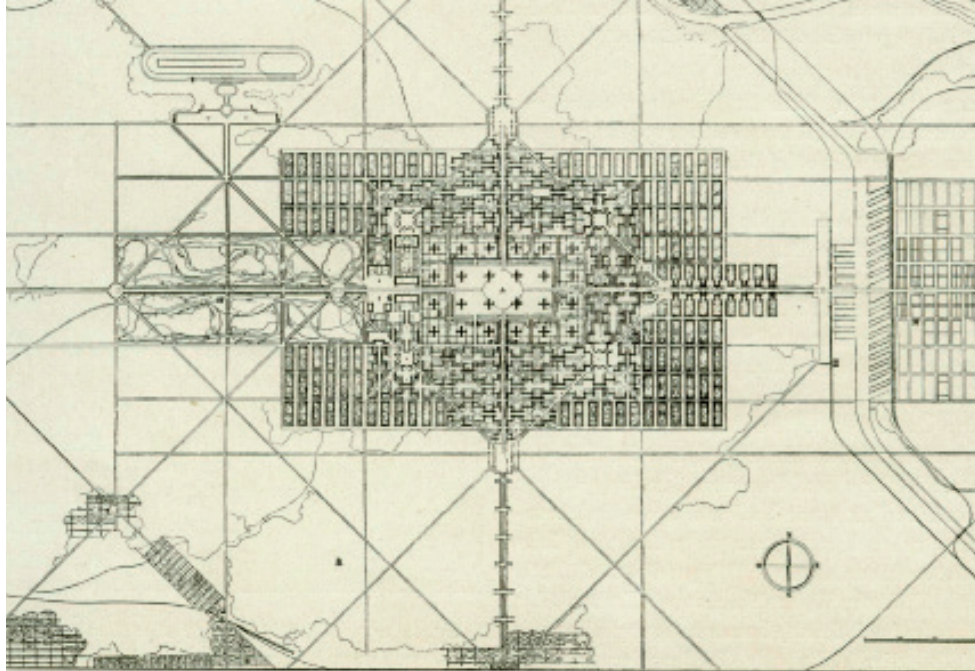
5. Störckuhl Beate, *Wieżowce we Wrocławiu a „gorączka wysokościowców” w Niemczech lat dwudziestych*, [in:] *Wieżowce Wrocławia 1912-1932*, Wrocław 1997, pp. 16-34

4. Nowakowski Maciej, *Centrum miasta. Teoria, projekty, realizacje*, Warsaw 1990, p. 8

2. Le Corbusier, *La Ville Contemporaine – a concept – a plan of a contemporary city for 3 million inhabitants*, 1922. In *Le Corbusier, Urbanisme*, Paris, 1924



In the extension of this complex, Le Corbusier planned a set of museums, theatres and other cultural facilities, next to green parks. The ideographic rectangle was completed by multi-storey apartment buildings (with two-storey villa-like apartments). The city was supposed to be surrounded by recreational green areas, isolating it from industry. In the ideal project the principles of future urban planning solutions were outlined, i.e. separation of functions and city transport systems, housing within green spaces, high-rise buildings in the centre to accentuate the concentration of functions and give a better sense of direction, repeatable types of buildings.



3. Le Corbusier, *A view of a contemporary city with orderly grouped tall buildings in the centre, 1922. According to Le Corbusier, Urbanisme, Paris, 1924*

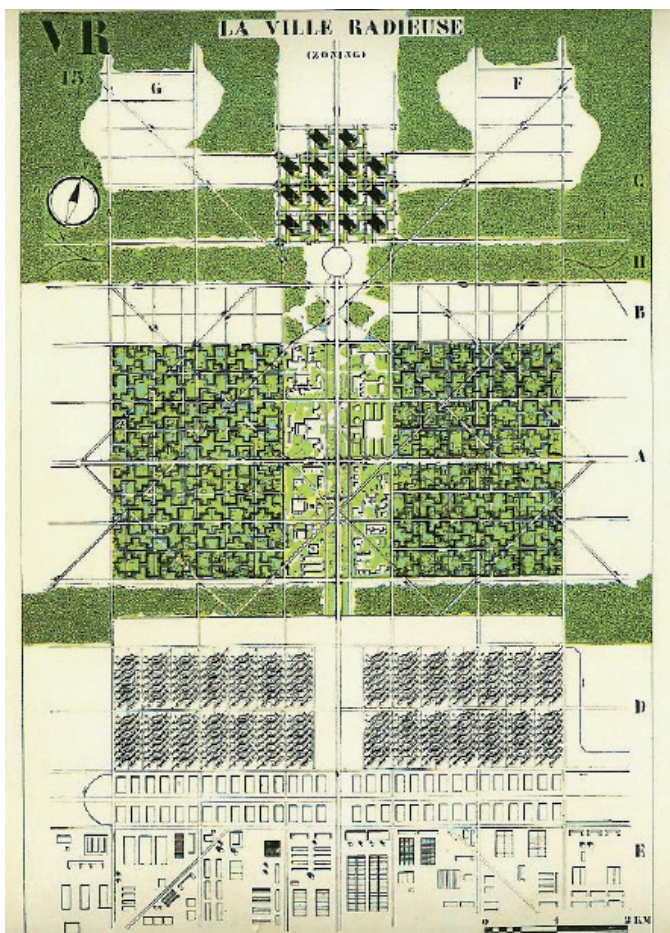
Raymond Unwin presented his model city the same year, 1922. His scheme also contained a clear centre with a cruciform ground plan, but his concept presented a different trend in urban planning, i.e. decentralisation of the city surrounded by satellite towns with their own centres.

In 1924-1927 Le Corbusier worked out a concept of a "Radiant City" (Fig. 4).⁶ (published in 1935) which developed the concept of the Contemporary City adding new themes with a

vestige of the idea of an industrial city and a neighbourhood unit concept. Segregation of functions and transport was extended over services, subjected to gradation identical with the hierarchical division: dwelling, settlement, city. Basic services were placed amid residential blocks of articulated outline, which would maximize the access of air, sunlight and greens. More sophisticated services related to housing – municipal, cultural and educational – were concentrated between the districts in the green belt of the centre, on both sides of a thoroughfare – the main axis of the system. Further along the thoroughfare-axis, around a railway station and airport located on it, there was a spatial culmination of the centre, with a group of unified towers, with office buildings, hotels, selected shops and underground car parks.

6. Le Corbusier, *La Ville Radieuse, Boulogne, 1935*

4. Le Corbusier, "La Ville Radieuse", Plan, 1924-1927. According to Le Corbusier, *La Ville Radieuse, Boulogne 1935*



These well-known ideal plans, usually analysed from the point of view of the integrity of the city and its residential function, make it possible to trace the development of the concept of the centre, the function considered as the city's derivative, not regarded yet as a separate planning issue. In these theoretical design projects the role of a railway station is crucial, as it was a key element of the city centre at that time.

In the 1920s, Le Corbusier's model concepts of a new large-scale modernistic city had little chance of implementation. He used his elaborate concepts of solutions of traffic segregation, multilevel transport systems and high-rise detached building designed for the centre in his visionary plans to change the overpopulated, unhealthy tissue of inner city areas in the 19th-century cities.

In 1925 Le Corbusier presented his "Plan Voisin", a scheme of reshaping the street grid and replacing old buildings with new ones in

the vicinity of the Louvre in Paris (Fig. 5). He replaced 19th-century uncontrollably developed centre with new complexes of organized detached cruciform towers, self-sufficient residential-service units, being a forecast of a post-war Marseilles unit. These radical changes in a street grid, the form and scale of buildings in the close vicinity of the historic core of Paris were not accepted.

In the late 1920s and 1930s, Le Corbusier presented similarly visionary concepts, of various levels of advancement, for many cities such as Geneva (1927-32), Buenos Aires and Sao Paulo (1929), Algiers (1931-32), Anvers (1932), Barcelona (1932), Stockholm (1933), Nemours (1934). A significant theme in his studies was the modification of super-units and the emerging specialization of the planned centres, e.g. in Nemours the centre had municipal and tourist character⁷.

Visions of shaping city centres with high-rise buildings captured the imagination of many European architects in the 1930s. Moscow provides many examples of never-executed plans to place new-scale modernistic buildings within historically outlined environment of

central squares. The outstanding Constructivist Konstantin Melnikov's competition entry in 1934, consisting in constructing a high-rise edifice of the Ministry of Heavy Industry with a ground floor plan in a form of two intertwined Vs in Red Square, Moscow, on the axis of Lenin's Mausoleum (Fig. 6), shows a painful clash of the Constructivism and Socialist Realism⁸.

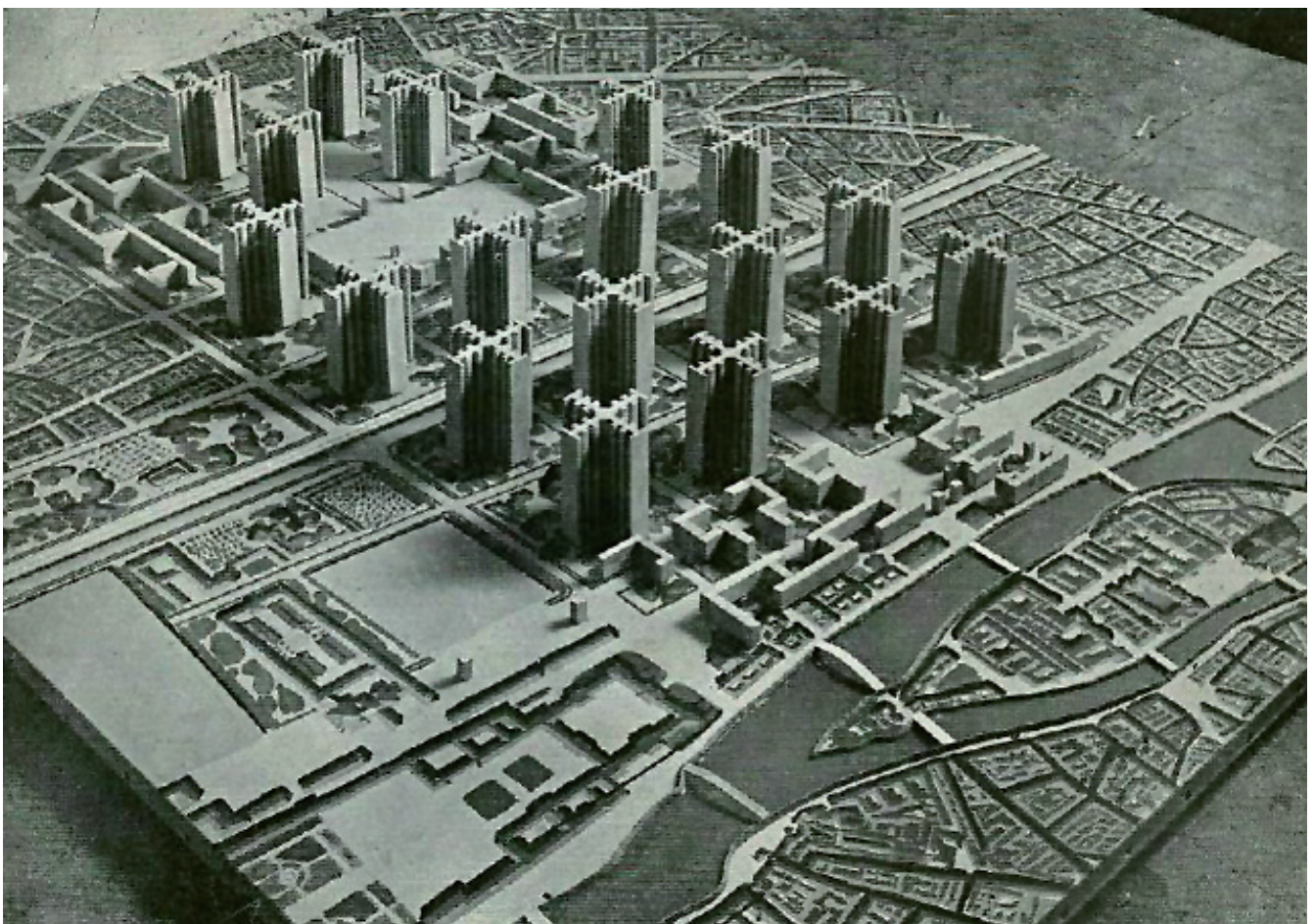
Perhaps the only city centre composed of skyscrapers, manifesting the influence of both local tradition and European architecture and urban planning, was created between the two wars in the USA. This was possible owing to the country's economic power, advanced technology and experience in constructing high-rise buildings.

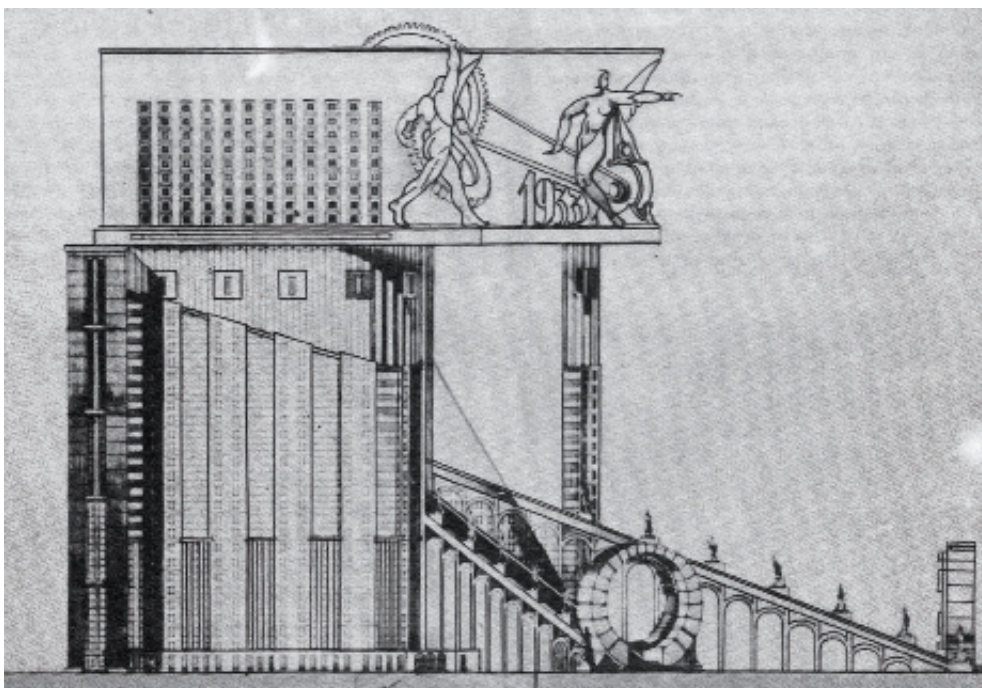
A private building project of the New York Rockefeller Center (Fig. 7), realized in the years 1931-1939 (in the first stage fourteen buildings had been erected by 1934, today there are twenty altogether), was designed by several American teams of architects (Hood, Goodley & Fouilhaux; Corbett, Harrison & MacMurray; Reinhard & Hofmeister). The complex occupied almost three blocks enclosed by 5th and 6th Avenues and 48th and 51st Streets, covering an area of 4.8 hectares. The Center combined many functions

7. Ibid., p. 205-209, 220-318

8. „Architektura SSSR“, 10/1934, pp. 4, 16-17

5. Le Corbusier, Model of a fragment of "Plan Voisin" for Paris, 1925. According to Le Corbusier, *La Ville Radieuse*, Boulogne 1935





6. Konstanty Mielnikow, *The design of a ministerial building in Red Square, Moscow, 1934*. According to „Architektura” USSR, 10/1934

– trade, culture, recreation, entertainment and administration. It housed Radio City with a music hall, theatres, radio studios, nightclubs, press agency and editorial offices, other offices, headquarters of international trade, underground shopping centre and a six-storey, partly underground car park⁹.

The Center was constructed amidst chaotically erected New York buildings as a complex of high-rise buildings, designed as a whole; the buildings opened the space, in line with Le Corbusier’s visions, instead of lining the streets. However, there were also significant differences as compared with a model European concept; the differences became a new value and an American contribution to the development of a concept of a city centre. The design of Rockefeller Center did not follow the idea of the standardized building. Heights and forms vary, and the compositional layout is more sophisticated than the rigid regularity of Le Corbusier’s ideogram. The diversity of forms of the centre became the value adopted also in Europe, along with the tendency to regular repeatability. Rockefeller Center is a centre of a selected function, one of several options in a great city. It confirmed the fact that a real city may not have but one centre. Its needs and size were decisive, after all.

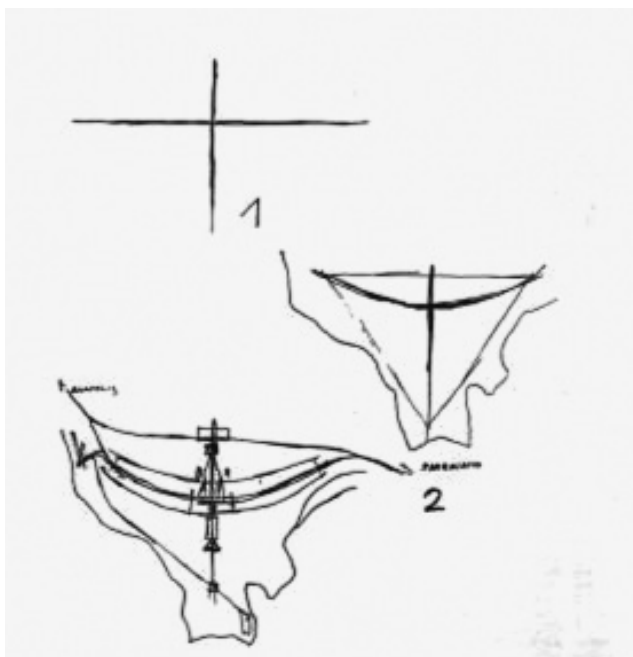
After the 1922 competition for the design of *the Chicago Tribune* building, European modernistic ideas contributed to the change in the shape of the American skyscraper: its Gothic historicism and decorativeness was replaced by a simple, cubic block, and details – by Art Déco aesthetics. European modernistic ideas for direct access of air and light to interiors

inspired American architects to create a new model of a high form – an upright flat slab. The design of the highest building of the Rockefeller complex, RCA Building (255 m high, 70 floors), used gradual recessing of the elevation surface, resulting from the arrangement of lifts inside

7. *New York, Rockefeller Center, 1934-1939, in the centre the GE Building (formerly RCA Building)*. Phot.. David Shankbone, 2007. According to http://en.wikimedia.org/wiki/Rockefeller_Center



9. Giedion Sigfried, *Przestrzeń, czas i architektura. Narodziny nowej tradycji*, Warsaw 1968, pp. 815-821



8. Lucio Costa, *Brasilia, Rules of a plan layout*, 1957. According to <http://www.infobrasil.com.br>

and 8-metre modules of the depth of the rooms. Rockefeller Centre can be regarded as a symbol of growing globalisation of flow of architectural and urban planning ideas, which justifies the term "International Style" invented at that time.

After WWII, the possibilities of putting into practice the theoretical concepts of functionalism, "Contemporary City" and "Radiant City," opened in non-European capital cities, newly-raised according to the CIAM modernistic principles: Chandigarh, the capital of Punjab, and Brazil's new capital Brasilia. They are both the continuation and culmination of the development of the modernist city and great progress in the concept of its centre.

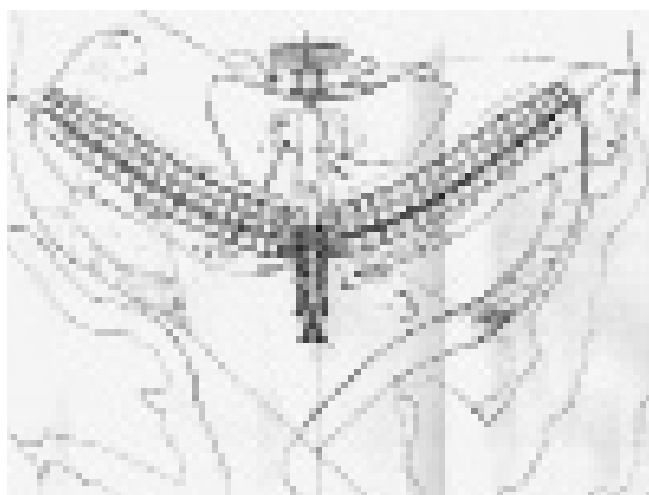
The designs of both cities demonstrate a significant enrichment of motifs and rearrangement of previous principles. A study carried out during the war and solutions included in the Greater London Plan made in the early 1940s under the direction of P. Abercrombie significantly contributed to the concept of city centre. The area of the centre was singled out and divided into functional service zones, as was the case with the whole city. Also Le Corbusier modified his earlier concepts of the city centre in 1945, while making a plan for the reconstruction of the town of Saint Dié; the plan included the grouping of functions of culture, administration, trade, tourism and sport.

In 1950, taking over from Albert Meyer and Matthew Nowicki, Le Corbusier produced and realized a plan for Chandigarh; the plan retains basic features of his earlier concepts and shows their further development. I will skip the hierarchical arrangement of living, working,

leisure and transport functions that has been analysed many times, and concentrate on the city centre. Chandigarh is made up of several specialised centres, situated in the city's hubs, crucial both to architectural composition and transport. The plan is based on the cross of transport and composition axes, and the city's trade and reception centre was located at the intersection of its arms. At the end of the south-north axis – supported by a greenbelt running smoothly through the grid pattern of the city – there is the Capitol, topping the plan like the head topping the human body, and being the state centre with a group of monumental buildings, symbolizing three powers in a democratic system: the Secretariat (1952-58), the Parliament (1952-62) and the Supreme Court (1952-56) which symbolically reflect tripartite division of power in a democratic system.¹⁰ Along and at the end of the perpendicular arm of the cross, on the east-west axis, there are buildings of the university and cultural centre. There is another trade centre here – an oriental bazaar situated on the outskirts, at the A road.

In 1957 urbanist Lucio Costa designed a plan for Brasilia, which was a magnificent interpretation of Le Corbusier's ideogram, and the city centre became the fifth function of the city, crystallizing its layout. Many interpretations of the plan point to the inspiration by a shape of an aeroplane or a huge bird. However, Costa's sketches leave no doubt that the starting point was the same transportation cross Le Corbusier had used in his theoretical designs, although in Brasilia the north-south arms were curved for topographical reasons (Fig. 8). At these arms, residential quarters were located in a regular, repeatable layout. On the perpendicular, shorter

10. Norberg-Schulz Christian, *Znaczenie w architekturze Zachodu*, Warsaw 1999, pp. 204-205; <http://pl.wikipedia.org/wiki/chandigarh>; <http://www.architectureweek.com>



9. Lucio Costa, *Brasilia, General plan*, 1957. According to <http://www.infobrasil.com.br>

monumental axis the centre was planned; the centre was composed of several segments with diversified functions and forms of buildings (Fig. 9).

The civic centre was located at the intersection of residential and central axes, and high buildings of its hotel and bank sector highlight the role of this place in the city layout. Farther on, the axis of the centre runs amid individualized forms of buildings of culture (the National Theatre, a museum) and religion (the Cathedral), creating the foreground of the state administration complex. This begins with a series of repeatable buildings of ministries, standing perpendicularly to the axis and flanking the avenue which ends in the Square of the Three Powers. The Square contains works by Oscar Niemeyer, crowning the whole spatial concept of the capital: the Court, the President's Palace and the Parliament. Four main modernist functions have been laid out in a particularly distinct way: (1) living – arranged in a layout of superblocks forming the plan's wings, (2) working – along the thoroughfares and in the centre, (3) recreation – in vast green areas around the city and on the artificial lakes, and (4) circulation – segregated and grade-separated. The fifth function of the modernist city, emancipated and with the most attractive architecture, was the centre¹¹.

The review of the concepts of big city centres must also contain the design of a new centre of Berlin, never realized though. Started in 1937, the works on the project were conducted by Albert Speer at Adolf Hitler's suggestion. The leader of the Third Reich dreamed of transforming Berlin into the capital of the world – Germania, with a population of ten million. This vision of the centre is worth mentioning, because it referred to a real city. The design – the essence of grandiosity, was supposed to manifest the strength and power of fascism by means of massive, heavy architecture based on classical patterns. A feature characterizing the vision of the new Berlin centre was its colossal scale and monumentalism which have always been highly appreciated by authoritarian states as instruments influencing the psychology and attitudes of the users of the space. As far as the whole city is concerned, the skeleton of the layout was a pattern of cross, which modernists liked so much, intersecting axes – thoroughfares. An intersection was supposed to be an area of the Parliament, Reichstag, marked by numerous symbols of power.

According to the design, the main, crisscrossing axes of the city were gigantic. The east-west axis would be 50 km long, while the perpendicular north-south axis would be 40 km



10. A model of housing development along the south-north axis of the Centre of Berlin, from Southern Station to the Assembly Hall (domed) by to Albert Speer, 1937. According to http://en.wikipedia.org/wiki/Welthauptstadt_Germania

long. A section of the north-south axis of 7 km in length, lying between two huge, new railway stations: Northern (the area of the present Lehrter Stadtbahnhof) and Southern (the area of Papestrasse Station) was to be an axis of a new centre, with a huge assembly hall 290 m high at the intersection of the city axes, in the vicinity of the Branderburg Gate and the Reichstag, burned down in 1933 (Fig. 10). Yet another similarity to modernist concepts can be seen in the design: the railway and the railway station would be essential for public transport and access to the centre, and because of the scale – not just one station, but two – enclosing the axis of the centre. Such transport facilities were necessary, because the concept for the centre of the capital city of the National Socialistic state involved a function of mass gatherings and demonstrations of the people, a nominal sovereign, whose collective will was articulated by the party's elite and the leader, and who had to be controlled. The anticipated capacity of the gathering place in the centre was 150.000-200.000 people.

Therefore, an assembly hall was planned, and the central axis was appropriately arranged – an avenue with squares, and functional

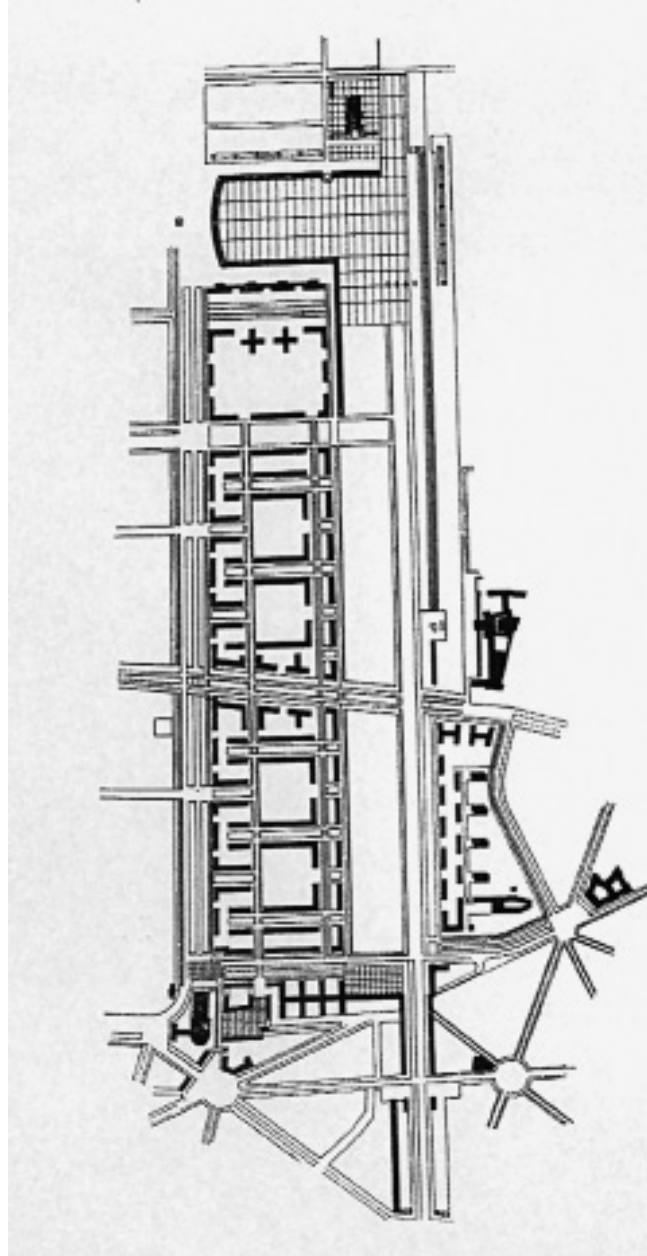
11. Jencks Charles, *Ruch nowoczesny w architekturze*, Warsaw 1987, p. 432; <http://www.infobrasilia.com.br>

elements located along the avenue. A series of buildings were planned to be constructed here: state administration headquarters, the *Führer's* palace, ministries, the High Command headquarters, head offices of German industrial flagships, trade facilities, a town hall, an opera and a theatre. In designing the city gate and the centre (a triumph arch and the dome-covered hall) A. Speer was inspired by A. Hitler's sketches from 1925. He entered these motifs into the design, giving them an immense size¹².

The concept of the centre of Berlin was typical of modern classicism as far as architecture is concerned. Also the concept of the main street with squares was taken from the repertoire of classical solutions. There were no detached tall buildings, the blocks were not situated vertically against the axis, there was no compact housing along the streets. Individually designed buildings occupied whole blocks, facing the streets with open yards, or with monumental street façade, obscuring the backyard. Early-modernist type of block housing was selected. The project of Berlin's centre had enough characteristic features to be recognised as 20th-century modernism, yet in its extremely traditional and ideological version.

And last but not least, *pro domo sua*. In 1920s there were attempts of enhancing the representative character of Warsaw. At the turn of 1920s and 1930s they consisted in reorganisation and modernisation of Warsaw squares that had the function of centres in the 19th century. However, the centre of Warsaw moved to the south, and it was there that new public buildings were constructed, without the emergence of a true urban centre. There was a need for creating a representative, compact centre and there were grounds no longer used by the military at the edge of the centre, i.e. the so-called Pole Mokotowskie, which could host a representative district. In 1935 Marshall Józef Piłsudski died, who had played a crucial role in the restoration of Poland after WWI and people wanted to pay tribute to him. At the same time, the Providence Temple – a national votive offering was also pending, so both concepts were coupled in a single project and spatial representation, taking the form of a representative district designed in 1938.

Polish architectural school of that time was characterised by openness to modernity together with strong respect for historical conditions and existing spatial and landscape context. In the design that was never carried out, the axis of the Warsaw representative district, vertical to



11. Bohdan Pniewski, *The design of a representative district of Warsaw – the Axis and square Forum Marszałka Piłsudskiego, a model, 1938*. In „Architektura i Budownictwo”, 11-12/1938

the Vistula river, reflected the direction of earlier monumental axes of the city. The long transport axis of the design was not an axis of symmetry of the layout (Fig. 11, 12). Clusters of buildings were planned as asymmetrical vis-à-vis the axis. The Providence Temple was also to be located off the axis; it would tower over a semi-open square, vertical to the axis, and over another long, green square parallel to the axis, closed at the other end by the building of the National Library. The design provided for the construction of ministries, offices of financial institutions, scientific and cultural institutions and living quarters there.¹³ The development of square Forum Marszałka Piłsudskiego would maintain historical Warsaw scale, and the dominants were to be the Temple and Marshall Piłsudski's statue. Moderate structural modernism with classical touch prevailed in the sketches to the design.

12 Kropp Alexander, *Die politische Bedeutung der NS-Repräsentationsarchitektur. Die Neugestaltungspläne Albert Speers für den Umbau Berlins zur „Welthauptstadt Germania“ 1936-1942/43*, Neuried 2005; http://en.wikipedia.org/wiki/welthauptstadt_germania

13. Skibniewski Zygmunt, *Nowa wspaniała dzielnica*, „Architektura i Budownictwo”, 11-12/1938, pp. 350-357

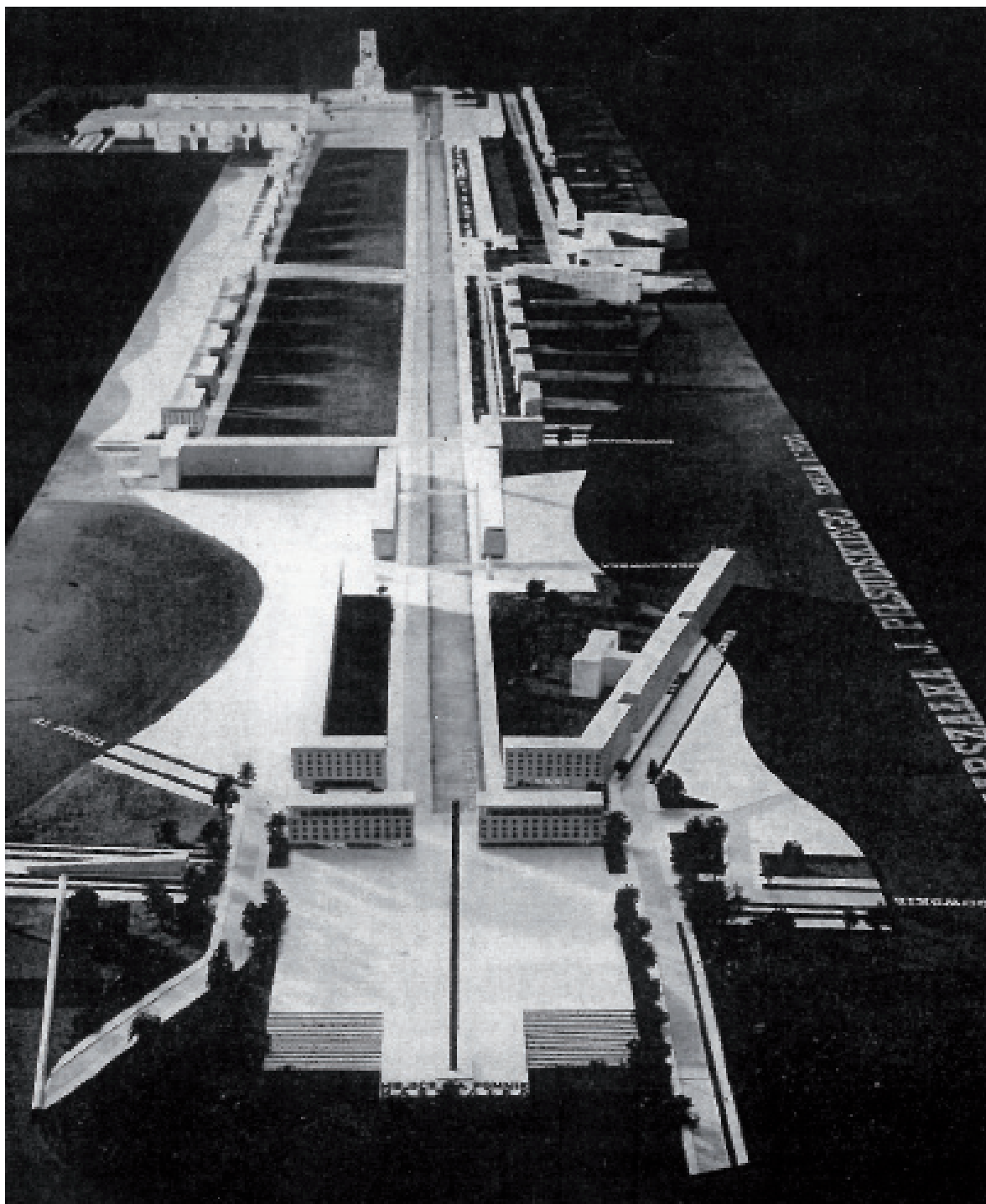
In Pole Mokotowskie, there was already the building of the Naval Command built in 1934-35 on Le Corbusier's plan of a cross, and work was under way on the Patent Office, according to a 1937 design reconciling modernised classics with Le Corbusier's motifs. Both constructions were designed by R. Świerczyński.

The project of Warsaw representative centre was of the same family as the design of a representative district of Gdynia, also born in

1938. Let me quote an opinion about the Gdynia concept by Maria Sołtysik, just to show that it could also refer to Warsaw: "This asymmetric, free treatment of axial-square plans with clearly and well composed dominants was a good example of mature functionalism in urban development. You can find here... a tendency for shaping open areas, transgressing one another..."¹⁴

14. Sołtysik Maria, *Gdynia miasto dwudziestolecia międzywojennego. Urbanistyka i architektura*, Warsaw 1993, p. 305

12. Bohdan Pniowski, *The design of a representative district of Warsaw – the Axis and square Forum Marszałka Piłsudskiego, a model, 1938.* In „Architektura i Budownictwo”, 11-12/1938



Conclusions

The examples presented above show that the concept of modern city centre developed with certain delay as compared with the development of rules and solutions of other basic functions of a modern city.

In the period before WWII mainly theoretical concepts developed. And only during and after the war, were the rules put to order and the first total and mature designs were performed.

Concepts of modern city centre were developing together with the development of the perception of a city as an organism and with realisation that a set of hierarchically-structured housing units, services and transport does not yet make a city. There is a need for some crystallising factor.

The need for symbolic meanings was appreciated in city centre formation. Avant-garde modernists reached for archetypes: the centre – crossroads, the centre – uplift. Traditional architects preferred more literal symbolism: solemnity and dignity of simplified classical forms, like, e.g., the symbolic meaning of a triumph arch or a dome. Both used definitions of the centre derived from antiquity: forum, capitol, acropolis. Centres of capital cities were the places of coding contemporary meanings with old and new means. Spatial organisation of centres, particularly in capitals, often reflected the level of social organisation of their inhabitants. The concepts of city centres before WW II reflected the main currents of Modernism of that period: Expressionism, Functionalism, and the so-called 'International Style', together with modern classicism.

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