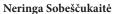
TWO REGIMES, TWO UNIVERSITY CITIES

Architectonic language and ideology in Lithuania and Portugal: 1930-1975



Dissertation of the Integrated Master's Degree in Architecture supervised by Professor Nuno Alberto Leite Rodrigues Grande



Department of Architecture, FCTUC, July 2013

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0 Introduction

Introduction

This thesis relies upon the assumption that "unlike science and technology, which have conventionally been presented as being free of ideological connotations, architecture is both a practical tool and an expressive language, capable of carrying highly specific messages."¹ Thus, it is not surprising that throughout the history architectonic production has been manipulated by politics. The function of architecture was to materialize, embody, reflect the dominant social, political or religious system and its ideology, it also acted as a propaganda tool, the aim of which was to impress, intimidate the spectators by the power of those who built it.

The first half of the 20th century was one of the most dynamic periods in the history of architecture and politics. It raised powerful and charismatic leaders: Stalin in Soviet Union, Hitler in Germany, Mussolini in Italy, Salazar in Portugal, Franco in Spain, and Smetona in Lithuania. The close relationship of "architecture and politics" was most visible under these totalitarian and authoritarian regimes. All of them used art and architecture to implement their "revolutions" and to consolidate their image in history. In the late 1930s, monumentality, grandeur, axiality, symmetry, order and hierarchy were the aesthetical principles used by all regimes, - Marxist, fascist, or nationalist, - no matter of their political orientation. Yet the difficulty in establishing the precise political meanings of buildings led to believe that irrespective of vernacular expressions, direct national iconography and political symbols such as swastika, hammer and sickle or fascine, there is no such a thing as overtly "political" architecture, and buildings cannot be named as fascist, democratic, or Stalinist.

However, due to its revisionist socialist roots, the avant-garde modernism has traditionally been more often presented as the personification of social democracy and

¹ Sudjic, Deyan - The edifice complex: how the rich and powerful shape the world, 2005, p. 7.

the liberal left. This is why the flat roofs, the white walls and the aesthetics of the machine, typical to the avant-garde modernism, are often associated with leftist ideologies in popular perception. In contrast, the architecture of the dictatorships, as it evolved in the 1930s in the Soviet Union, Germany and Italy, was seen as an inseparable link between monumental neo-classicism, stylistic conservatism and totalitarianism. But it is interesting to note that abstract language of avant-garde modernism and its unconditional honestly about the materials was never totally removed from totalitarianism vocabulary. So is there, in fact, such thing as totalitarian, or a democratic, or a nationalistic building? And if they do exist, what is it that gives architecture such meanings? Is there any specific architectonic language for political ideology? Can classical columns or white walls be described as the signs of totalitarian or democratic building? Are these fixed and permanent meanings, or can they change over the time?

The study addresses itself to the investigation about the developments in European design, mostly from the 1930s to 1970s, on the architectural practices under the dominance of totalitarian regimes. It reveals how these political, social and cultural factors had caused an urban and architectural development in the context of Lithuania and Portugal.

The aim of this thesis was to find the main points and reasons of the change, which made the architects to create in one or another style. To answer the question whether the architectural language is dependent on political power (totalitarian, authoritarian or democratic environment in which it was created) and if so, how this was reflected in urban design and architectonic expression.

The author chose to approach this widely discussed theme "the relation between architecture, power, and national identity" or "traditionalism versus modernism" to a detailed discussion on the four specific case studies – the universities built in Lithuania

and Portugal during the period of 1930-1975. Choosing the functional typology for the case study became an important aspect of this thesis.

University complexes are classified as typological group of public buildings, but it can be said that they stand out from other public buildings due to their polemic nature. On the one hand, university complexes have a very clear and even pragmatic function which is followed by a well-defined and even rational spatial structure. However, at the same time, it is a place where "the intelligentsia of the country" is educated. This clearly defined ideological aspect makes this typological group of buildings so unique. Therefore, it is not surprising that politicians, particularly dictators of totalitarian and authoritarian states, saw university space as an important political and propaganda tool to express their political and ideological beliefs, and educate the "future elites" through urbanism, architecture and applied arts. Not forgetting the fact that university facilities usually occupies an important place in the city's urban landscape and considerable attention is paid to the architectural quality and representational importance. Because of all these factors the universities served as a strong example to illustrate the architectonic and urban achievements in Portugal and Lithuania under the authoritarian regimes.

The two countries, Lithuania and Portugal, have much more in common that one could ever imagine. Situated at the opposite ends of the Europe in the 20th century were peripheral countries in comparison with powerful and economically strong ones as Italy, Germany or Soviet Union. Although, both saw the importance to participate in European community by adapting the current architectonic trends and new technologies, nevertheless, seeking to keep their own identity and local traditions. Both in Lithuania and Portugal the search for the style to match the spirit of the age and at the same time to keep the national identity were equally strong.

As it might be this paradox, together with personal interest and observation, - the first city of focus, Kaunas, is the city of origin of the author, and the second city of focus, Coimbra, is the city of current studies of the author, - it is intriguing to notice how despite the distance, different political situation, contradictorily, some of the architecture produced between the 1930s and 1970s are strikingly similar in both countries; of which has stimulated the curiosity and the aim in writing this thesis to clarify this image and highlight the similarities and differences between the architectonic language and urban design produced in Lithuania and Portugal in above mentioned period.

As it was mentioned before, one of the central aims of this thesis seeks to reach a deeper understanding of the stylistic development under the dominance of totalitarian regimes in Lithuania and in Portugal between the 1930s and 1970s, especially focusing on the university design. In order to answer this question, elements contained in it were researched separately. The research was done on three main topics: general situation in Europe, situation in Lithuania and situation in Portugal. Each of these segments was analyzed in a different scale. Firstly understanding the political and architectural situation in Europe during the above mentioned period, and then deeply analyzing the situation in Lithuania and Portugal. The thesis follows a very strict sequence of chapters that emerged as structural part of argumentation.

Literature was the basic tool to understand the context of this theme. For specific case studies the archive documents, magazines and newspapers of the period when buildings were designed and erected helped to reach the deeper understanding of the epoch and the place of those buildings in the context of national importance.

Lithuanian architecture history of the 20th century is still under formation. Thus far, the major part of research works has been published only in a form of scientific articles or summarized texts. Nevertheless, it is worth to mention the doctoral dissertation of Vaidas

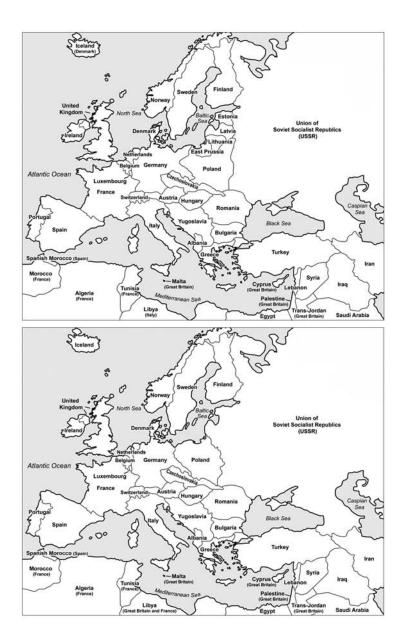
ARCHITECTONIC LANGUAGE AND IDEOLOGY

Petrulis "Sociokultūriniai sovietmečio architektūros stilistinės raidos kontekstai" (The sociocultural contexts and stylistic developments in the Soviet Lithuanian architecture) and Marija Drėmaite, Vaidas Petrulis and Juratė Tutlytė "Architektura sovietineje Lietuvoje" (The architecture in Soviet Lithuania). Both works served as a sort of kaleidoscope representing the general situation and prevailing trends of the Soviet Lithuanian architecture. The book of Jurgis Bučas "KTU pastatų architektūra" (The history of Kaunas University of Technology) was helpful to understand the chronological and stylistic development of the Kaunas University of Technology. Another publication "Kauno architektūra" (The architecture of Kaunas) explores several architectonic production cases in the city of Kaunas. Despite the fact that texts are summarized the book represents history and development of architecture in the city of Kaunas. It may maintain that modern architecture of Lithuania still lacks architecture historians able to focus their research works on the history of architecture of the 20th century. Research abroad about Lithuania or Baltic architecture in general is not especially great either. Most of the texts are often summarizing and more orientating towards architecture in Russia. So from the beginning this thesis will show the pioneer effort to deeper the research field in Lithuania.

The opposite attitude towards the research of the 20th century we may see in Portuguese scientific field. Publications issued in Portugal offer deeper theoretical and historical analysis about the subject. First of all several academic works should be highlighted: Sílvia Benedita *"Expressão: fascista? O percurso da Cidade Universitária de Coimbra como expressão de uma arte política"*, Rui Mendes *"Instalações académicas de Coimbra"*, and Daniel Carvalho *"Monumentality in power: a Portuguese case 1926-1974: the University of Coimbra and the construction of national culture"*. The books of Nuno Rosmaninho *"O Poder da Arte - O Estado Novo e a Cidade Universitária de Coimbra"* and Luís Reis Torgal *"A Universidade e o Estado Novo - O caso de Coimbra 1926-1961"* makes an effort to

express objective historical attitude. It shows relation between architecture and sociocultural context on the specific case of the University City of Coimbra. To understand the architecture during the "*Estado Novo*" (New State) in wider sense the works of José António Bandeirinha "*Quinas vivas - Memória Descritiva de alguns episódios significativos do conflito entre fazer moderno e fazer nacional na arquitectura portuguesa dos anos 40*", José Fernando Gonçalves "*Ser ou não ser moderno: considerações sobre a arquitectura modernista portuguesa*", Annette Becker, Ana Tostões, Wilfried Wang "*Arquitectura do século XX: Portugal*" and Ana Tostões "*Os Verdes Anos na Arquitectura dos Anos 50*" should be mentioned.

1 | historical context



- 1. Europe before the World War Two, 1939.
- 2. Europe after the World War Two, 1945.

Historical and political context of Europe: 1920-1970

Europe between the two World Wars consisted of a total of twenty-eight nation states.² In early 1920 most of them could be described as democracies with a parliamentary system. Thus, by late 1940, only five democracies remained intact: United Kingdom, Ireland, Sweden, Finland and Switzerland. [Figs. 1, 2]

1930s began with the global economic depression. The Wall Street Crash of 1929 and consequences of the First World War, unemployment, homelessness, economic uncertainty, only further highlighted social contrasts. It was a time when most European countries were dominated by softer or more stringent authoritarian or even totalitarian regimes. There were several reasons for this: one of them was economic instability, which needed to be quickly and efficiently stabilized, while the other reason was that the majority of countries were monarchies before the First World War, and they became democratic after it, but such a sudden political freedom was considered to be too binding by the society. This absence of democratic traditions and economic uncertainty resulted in fast and successful radicalization of both left-wing and right-wing, which was accepted without any resistance.

The high-flying dreams of a new mankind that had accompanied the October Revolution of 1917 in Russia soon was replaced by a communist reign of terror under Josef Stalin, who came to power in 1924 and stayed until his death in 1953. This was a dictatorship of the far left. In fact, all other dictatorships came from the right of the political spectrum. In 1922 Mussolini installed the basic principles of Fascism in Italy. Eleven years later, in

² Portugal, Spain, Andorra, France, Monaco, Switzerland, Luxemburg, San Martino, Italy, Greece, Turkey, Bulgaria, Albania, Yugoslavia, Romania, Hungary, Austria, Czechoslovakia, German Reich (Third Reich), Belgium, Netherlands, United Kingdom of Great Britain and Northern Ireland, Ireland, Denmark, Lithuania, Latvia, Estonia, Union of Soviet Socialist Republics (USSR), and also three Scandinavian nations: Finland, Sweden, and Norway.

1933, Hitler was appointed Chancellor in Germany and established a more ruthless regime – the Nazi Third Reich.³

The right also produced a series of more conservative dictatorships which spread all over the Europe.⁴ Hortly established control over Hungary in 1920, Piłsudski over Poland in 1926, General Franco took power in Spain after the civil war in 1936, António de Oliveira Salazar became the President of the Government Council in Portugal in 1932. Even the tiny Baltic States adopted an authoritarian system: Lithuania fell to Smetona in 1926, Latvia to Ulmanis in 1934 and Estonia to Päts in the same year.⁵

The term "fascism", stemming from the Italian word "fasces",⁶ primarily is used to describe a "totalitarian" regime which ruled Italy from 1922 to 1943 under Mussolini's leadership. Although there are substantial differences between Italian fascism, German National Socialism and other varieties of "fascist" movements, since the 1990s the general use of "fascism" emerged among historians such as Robert Paxton, Stanley Payne, Roger Eatwell and Roger Griffin to describe an "extreme right" political trends.⁷ "According to their point of view, this concept may very well be stipulated as a generic one with a certain core tenets, at least for pragmatic and comparative reasons."⁸

The concept of "totalitarianism" was firstly used by opponents of Mussolini's fascist movement in 1923, to describe a "total" political power by state.⁹ However, Mussolini was

³ Lee, Stephen J. - European Dictatorships 1918-1945, 2000, p. 1.

⁴ These are often called authoritarian, in contrast to the totalitarian regimes of Italy, Germany and Stalin's Russia.

⁵ *Ibid*, pp. 2-3.

⁶ The *fasces* is a bundle of rods with a protruding axe-head, carried by magistrates in ancient Rome; a symbol of authority.

⁷ Referring to the books: Robert Paxton *The Five Stages of Fascism* (1988), Stanley Payne *A history of fascism*: *1914-1945* (1995), Roger Eatwell *Fascism: a history* (1995), and Roger Griffin *The nature of fascism* (1991).

⁸ Ranta, Michael - Narrativity and Historicism in National Socialist Art, 2010, p. 3.

⁹ Stanley, Payne - A History of Fascism: 1914-45, 1995, p. 121.

able to pick it up as positive description and Giovanni Gentile, leading theorist of fascism, used the term "totalitario" to refer to the structure and goals of the new state.¹⁰ For Mussolini the term expressed the primacy of the political power over all spheres and aspects of political and social life. During the speech in 1925, Mussolini proclaimed the key principles of fascist philosophy - "everything in the state, nothing outside the state, nothing against the state."¹¹

The use of the term totalitarianism quickly spread to other European nations, including the Nazi Germany, and was used in positive sense to describe a novel form of political regime in which a party, usually through the means of terror and propaganda, sought to mobilize the society for the use of the state and political ideology.

By the end of the war in 1945 the world was divided into Eastern and Western power blocks, with the barrier between them running straight through Germany, which was divided into two.

The Western, capitalist-oriented power block was formed out of the democratic countries, headed by the United States as the world's most powerful economy. The Eastern power block, where communism was the determining ideology, was led by USSR. Up until the collapse of the Communist Block in 1989, East and West stood in irreconcilable opposition to each other: this was named as the "Cold War".

With the arrival of the Cold War the term "totalitarianism" gained a completely new definition. The liberal thinkers like Jacob Talmon and Hannah Arendt played a significance role in adopting a new concept of totalitarianism.¹² They used the term as a

¹⁰ *Ibid*, p. 121.

¹¹ Falasca-Zamponi, Simonetta - Fascist Spectacle: The Aesthetics of Power in Mussolini's Italy, 1997, p. 60.

¹² Referring to the books: Hannah Arendt *The Origins of Totalitarianism* (1951) and Jacob Leib Talmon *The Origins of Totalitarian Democracy* (1952).

description of Hitler's Germany and Stalin's Soviet Union. According to them, "both systems were characterized by the absolute rule of a party-state led by charismatic leader who instituded a lawless system and used terror to control the population."¹³ The new interpretation of stressing the similarities between Nazism and Communism became dominant during the 1950s and 1960s, and remains so even today. During the Cold War era the term was embraced by the Western community in which they were able to present themselves as free and liberal community in contrast to the new totalitarianism now located in the Soviet Union under the Iron Curtain.

Totalitarian art

Although the term "totalitarianism" is commonly used to describe the political regime in Hitler's Germany, Mussolini's Italy or Stalin's Soviet Union, but it is interesting to note that Igor Golomstock finds a parallel between totalitarian regimes, their ideology and artistic production in his book *Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China* (1990).

Naturally, there are indisputable differences in the historical development of these countries, their ideologies spread, the relation between modern architecture and revolution. However, all of them needed art and architecture, which would implement their revolutions and consolidate their image in history. The paradox is that no matter behind what wall of ideology stood architecture, either fascism or communism, art created in totalitarian regimes is in essence identical. Even more, not only is "the final product identical", but also "the means of preparation (totalitarian aesthetics) and the technology of production (totalitarian organization) turn out to be equally similar" in

¹³ Rasmussen, Mikkel Bolt; Wamberg, Jacob - Totalitarian Art and Modernity, 2010, p. 109.



Gunnar Asplund: Stockholm Public Library, Stockholm, 1922/1928.
 Ivar Tengbom: Stockholm Concert Hall, Stockholm, 1926.
 Gunnar Asplund: Woodland Crematorium, Stockholm, 1935/1940.
 Auguste Perret: Palais d'Iena, Paris, 1939.

these regimes.¹⁴ The Russian art historian Igor Golomstock even calls this phenomenon "a second – after modernism – international style of contemporary culture."¹⁵ A similar position is shared by Hans Ibelings in his book *European architecture since 1890* (2011). In his opinion, during the inter-war period, "monumental architecture became dominant at the expense of what might be called the modern avant-garde."¹⁶ The Anders Aman in his book *Architecture and ideology in Eastern Europe during the Stalin era: an aspect of Cold War history* (1992) analyses *Socialist Realism* architecture is one of the tools of manifestation of power "a choice, once made, becomes part of the determinants of the choices that follows."¹⁷ It can be assumed that in other historical circumstances, the Constructivism would have become the architecture of the Stalin era, while *Neue Sachlichkeit* – the Modernism of the Nazi Germany.

However, such reflections do not answer the more intriguing question why the monumental order which represented a return to Classicism during the 1930s was embraced by all the European nations, irrespective of political complexion. The revival of traditional language was visible not only in totalitarian regimes – Mussolini's Italy, Hitler's Germany, Stalin's Soviet Union; authoritarian regimes - Franco in Spain, Salazar in Portugal, Marshal Josef Pilsudski in Poland, Admiral Miklos Horthy in Hungary and Antanas Smetona in Lithuania. The phenomenon was so widespread, that it occurred in countries with democratic governments, for example the works of Auguste Perret in France, Erik-Gunnar Asplund or Ivar Tengbom in Sweden. [Figs. 3, 4, 5, 6]

¹⁴ **Golomstock, Igor** - Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China, 2011, p. xii.

¹⁵ *Ibid*, p. 306.

¹⁶ Ibelings, Hans - European architecture since 1890, 2011, p. 149.

¹⁷ **Aman, Anders** - Architecture and ideology in Eastern Europe during the Stalin era: an aspect of Cold War history, 1992, p. 285.

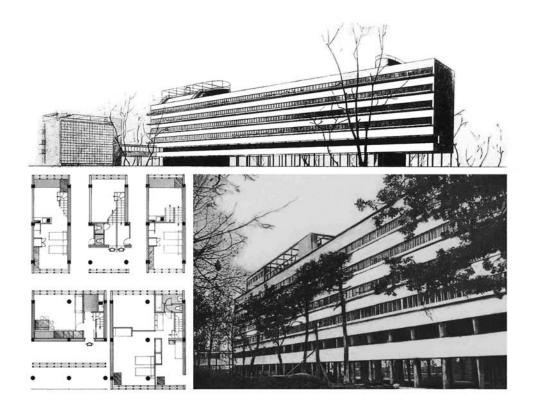
The avant-garde which opened the way for totalitarianism¹⁸

Avant-garde movements prevailing before the First World War sought the cultural and political reform. New trends in the art such as Art Nouveau, Expressionism, Futurism and Cubism broke the traditional *Beaux-Arts* canons and were actively looking for new concepts, forms and ways, which would reflect changes in the world, which has progressed at lightning speed and was marked by endless technical achievements.

However, only after the end of the First World War, traditional perception of the world has changed radically. Centuries old Europe was destabilized. Austro-Hungarian Empire disappeared from the map of Europe, Russian and German monarchies were destroyed by revolutionary movements, the October Revolution in Russia (1917) and the establishment of the Weimar Republic in Germany (1919). New countries Austria, Czechoslovakia and Hungary, newly independent states Finland, Poland and the Baltic States, Estonia, Latvia and Lithuania, appeared. Such dynamic developments testified about the upcoming changes in post-war Europe.

Although the war only exacerbated the pre-existing social and economic problems, general deprivation, famine, unemployment, homelessness, has become a challenge for intellectuals of all areas, artists, writers, architects, urban planners and politicians. This was primarily expressed by new avant-garde experiments, which was a direct response to the newly formed social and political situation in Europe. At that time, the artistic and political programs went hand in hand from Moscow to Paris with the aim of "changing the face of the world": to improve living conditions and solve the difficult social and economic situation in the post-war period.

¹⁸ **Golomstock, Igor** - Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China, 2011, p. 28.



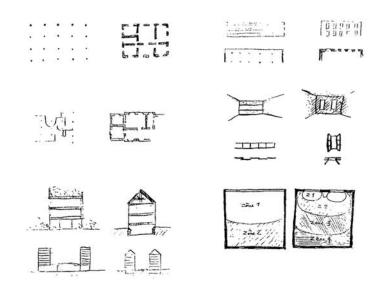
7. Moisei Ginzburg, Ignaty Milinis: Narkomfin (People's Commissariat for Finance) apartment building with collective facilities, Moscow, 1928/1929.

The modern avant-garde movement was established in this ideologically and politically uplifted context. This movement represented more than a new architectural style. Avantgarde movements, which were particularly active in 1920-1930, wanted to abandon old *Beaux-Arts* traditions by using a new formal language, building types and spatial concepts. At the same time architects were responding to the complete change in social structures brought about by the war, especially when applied to the housing problems. [Fig. 7] Architects believed that the new modern architectural concepts and forms can not only solve the problems of war, but also lay a solid foundation for the future of the world. This clearly defined social aspect of architecture was the reason why the word "modern" was used along with the word "movement".¹⁹ Architects succeeded in creating a distinctive language of design, most visibly in Weimar Germany and Soviet Russia. Some of the other terms used to describe a similar idea: *Neue Sachlichkeit* (New Objectivity) in Germany, Holland and Switzerland, Constructivism in Soviet Union, Rationalism in Italy, and also some more generalizing terms as Functionalism and International Style.²⁰

The early experiments of modernism in pre-war period combined with postwar circumstances exposed several key attitudes. Functionalism was a dominant principle which meant that external form should rise from internal function and structure should be expressed architecturally. Architecture was seen as a volume rather than a mass. So the stress was on continuous, unmodulated wall surface with long horizontal windows; light

¹⁹ The origin of the term is associated with Nikolaus Pevsner's book *Pioneers of the Modern Movement from William Morris to Walter Gropius* (1936), where he traced the sources of the Modern Movement and asserted that it was "recognized accepted style of our age". The term International Style was widely used synonymously with Modern Movement. The term orginated from the title of the exhibition *The International Style: Architecture since 1922*, which was held in the Museum of Modern Art in 1932 and the book by Philip Johnson and Henry-Russell Hitchcock which appeared simultaneously with the exhibition. One of the points that the book made was a key one – that the Modern Movement was a "style similar to Gothic or Baroque".

²⁰ Leonardo Benevolo suggests to avoid using the last three terms to indicate the movement as a whole, because they did not seek to solve the problems when social and political situation became really serious. **Benevolo, Leonardo** - *History of modern architecture, volume II*, 1992, p. 495.



8. Le Corbusier: Five Points of a New Architecture, diagrams comparing the potentials of reinforced concrete and traditional masonry systems of construction, 1926.

and simple frames; flat roofs. Regularity rather than enforced axial symetry; no applied ornamental decoration. New skeleton or cage construction scheme; free plan. New building techniques based on materials like concrete and steel; industrialization and standartization of building methods.²¹ Le Corbusier's famous slogan, the house as a *machine á habiter* and five points of architecture which was declared in *Vers une Architecture* (1923) was one of the most influential book of the twentieth century which declared the main principles of architectonic language of Modern Movement. [Fig. 8]

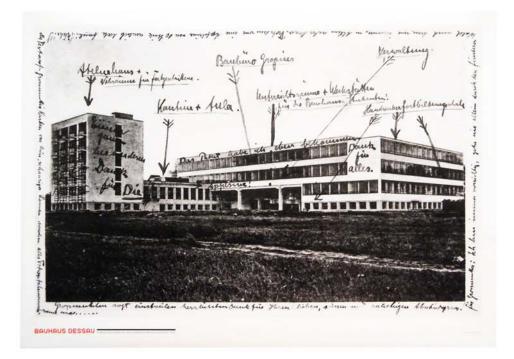
Great attention was paid to hygiene: light, air. Not only the rooms had to be well lit and ventilated, but these principles also moved into urban planning: zoning notion – separation of different areas such as living, working, relaxation, and transport; priority is given to traffic system – wide streets, railway or metro; green and open spaces like parks or squares; simple free standing apartment blocks affording plenty of air and light. Tony Garnier's *Cité industrielle* (1904) became the prototype of modern city.²² His idea later was extended by Le Corbusier in *Ville Contemporaine* (1922).²³

Social equality in architecture was expressed by the search for more rational and cheaper construction methods: standardization and mass production. Unlike the *Beaux Arts*, which was dedicated to the bourgeois class, modern architecture was "classless", affordable for the lowest social classes. The search for such "classless outlook" architecture and belief that the architect's main mission is to achieve the transformation of society particularly stood out by experiments in two schools of architecture, Bauhaus (1919-1933) in Germany and VKhUTEMAS (1920-1929) in the Soviet Union. The new Bauhaus campus at Dessau, where the school moved in 1924, became a built manifesto of "classless outlook" architecture. [Fig. 9]At that time when representatives of the Bauhaus

²¹ Kostof, Spiro - A history of architecture: settings and rituals, 1995, pp. 701-702.

²² Frampton, Kenneth - Modern architecture: a critical history, 2002, pp. 100-104.

²³ *Ibid*, pp. 154-156.



9. Walter Gropius: Bauhaus school, Dessau, 1925/1926.

School were fighting for everybody's right to good design items, Russia constructivists went even further and created a new structure of society: houses-communes, workers' clubs, factory canteens.

When it seemed that the modernism triumphs around the world, the three great international competitions, for the Chicago Tribune in 1922, the League of Nations headquarters in Geneva in 1927, and the Palace of the Soviets in 1932, has become a symbolic turning point in architecture. These competitions were the contests between the traditionalists and the avant-garde architects, which ruthlessly ended in *Beaux-Arts*²⁴ victory.

The returning aspiration for the academic aesthetic reflected not only in architecture but also in socio-political field. Although the competition ended in victory of academics, it also showed that the majority of architects in Europe use similar methods. This encouraged modern architects to join forces and establish an organization that would act as a propaganda tool to promote the new architecture that was developing in Europe in the 1920's.²⁵ The first *Congrès internationaux d'architecture moderne* (CIAM) took place in La Sarraz, Switzerland in 1928.

Retour à l'ordre

The three most famous inter-war competitions Chicago Tribune, League of Nations and Palace of the Soviets did not only show the return of conservative classical vocabulary, but it was also "a victory for the old view of the ranking order of buildings."²⁶ [Figs. 10-18] "Architectural treatises and the art academies of the nineteenth century had placed

²⁴ The term *Beaux-Arts* is used as a synonym for tradition and neo-classical style of architecture taught in the Académie des Beaux-Arts in Paris.

²⁵ Mumford, Eric - The CIAM discourse on urbanism 1928-1960, 2000, pp. 9-10.

²⁶ **Aman, Anders** - Architecture and ideology in Eastern Europe during the Stalin era: an aspect of Cold War history, 1992, p. 76.



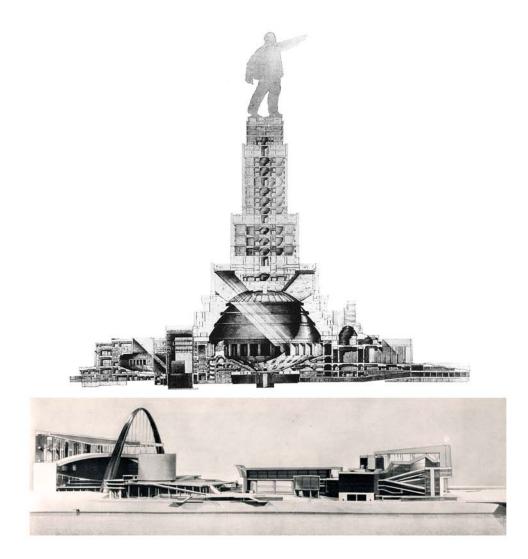
John Mead Howells, Raymond M. Hood (NYC): Chicago Tribune competition entry, first prize, NYC, 1922.
 11. Walter Gropius, Adolf Meyer (Weimar, Germany): Chicago Tribune competition entry.
 12. Adolf Loos (Nice, France): Chicago Tribune competition entry.
 13. Bruno Taut, Walter Gunther, Kurz Schutz (Magdeburg, Germany): Chicago Tribune competition entry.
 14. Hannes Meyer, Hans Wittwer: Palace of the League of Nations' competition entry.
 15. Le Corbusier, Pierre Jeanneret: Palace of the League of Nations' competition entry.
 16. Henri-Paul Nénot: Palace of the League of Nations' competition, first entry.

building assignments in ranking order, in terms of social prestige and symbolic pretensions. [...] An attempt to break or at least tone down this traditional hierarchy was already made by the early-twentieth-century Modernists Tony Garnier and Peter Behrens. To the Functionalists and Constructivists of the 1920s, this was a self evident requirement. Buildings of all types were essentially equal. [...] The only symbolic form acceptable to the radical architects of the interwar years was that which was radically new or could be accommodated within a functionally or technically justified vocabulary."²⁷ "The return to order marked the return to separation. In architecture it involved rationality, the invention of a pseudo-scientific subjects, the distributive characters of buildings, which laid emphasis on classification and typology: architecture could be broken down into public, private, industrial or military.[...] Even the architectonic and figurative languages are recognizable immediately: the rhetoric use that 1930s architecture made of frescos, mosaics, decorative panels and sculptures emphasizes the differences."²⁸

Government and public buildings were on the top of the hierarchy. They had a task to embody the ideology in a form intended to endure for centuries. They had to be monumental, use a classical language, expensive materials such as granite and limestone, as well as decor elements – statues, reliefs. Most of the buildings even might be with a modern structure underneath, but the "stone façade" would link them to traditional values, and even more important to security and stability. Meanwhile, the utilitarian buildings were expected to be rational: they were allowed to have abstract monumentalism and even modern materials in facades such as glass, steel and reinforced concrete.

²⁷ *Ibid*, p. 75

²⁸ Borsi, Franco - The monumental era: European architecture and design 1929-1939, 1987, pp. 12-13.



 Boris Iofan, Vladimir Gelfreich, Vladimir Schuko: Palace of the Soviets, final version of the chosen design, Moscow, 1937.
 Le Corbusier, Pierre Jeanneret: Palace of the Soviets competition entry, Moscow, 1931. The hierarchy of building types was rejected by modern avant-garde architects, who followed the basic principle of functionality, "form follows function."²⁹ Meanwhile, the world's most influential leaders sought to express their own personalities through buildings. The function of architecture for them was to materialize, embody, reflect the dominant social, political or religious system and its ideology, acted as a government propaganda tool, the aim of which was to impress the masses.

In this case, the abstract, history-free avant-garde did not fullfill the didactic needs of the new states; its over-complex mode of appeal was ineffectual of influencing the masses. It was necessary to address the masses in a simple and accessible language. Therefore, "cold", "inhuman" and "rootless" modern avant-garde architecture did not meet these goals; on the contrary, it was harmful. It was called Jewish and Bolshevik in Italy and Germany, ³⁰ while in the Soviet Union it was called elitist, bourgeois and understood only by some professional designers. There was also professional criticism in addition to this pseudo-criticism. The flat roofs were not waterproof in comparison with the traditional hip roofs; the white stucco favored by modern architects peeled off; steel window frames rusted where the original wooden ones did not; the big glass surfaces let too much light in and were not energy-efficient. Although most of the criticism focused on internationality and impracticability of the modern avant-garde architecture, but what actually concerned the dictators was that they wanted to control all areas, including art, so they were afraid of such free and progressive modern architecture for its unpredictability.

²⁹ The American architect Louis Sullivan was the first to use the phrase "form (ever) follows function" which later was adopted as an aesthetical principle by modernists. In the article issued on March 1896, Louis Sullivan stated: "It is the pervading law of all things organic and inorganic, of all things physical and metaphysical, of all things human and all things superhuman, of all true manifestations of the head, of the heart, of the soul, that the life is recognizable in its expression, that form ever follows function. This is the law." Sullivan, Louis H. - *The Tall Office Building Artistically Considered*, 1896, p. 408.

³⁰ In Italy, modern art and architecture was criticized only after Mussolini's visit to Germany in 1937.



Futurists: Poster of Mussolini, 1934.
 20. El Lissitzky: Poster of Lenin.

It is ironic that Italian and Soviet avant-gardists were the first to enthusiastically greet the revolution and the first to come up with the idea "that art should serve the Revolution and the State."³¹ Mussolini's fascism in Italy and Lenin's Bolshevik revolution in Russia emerged with the dynamism and suggestibility of the Futurists and the Constructivists (posters, monuments, demonstrations) and ruthlessly abandoned them after the change in direction. [Figs. 19, 20] Hitler had no such problem in Germany; he began to pursue an aggressive anti-modern policy as soon as he came to power in 1933. Modern art was seen by Hitler as an act of conspiracy of Jews and Bolsheviks against the genuine and pure German spirit of "blood and soil".

Reactionary modernism

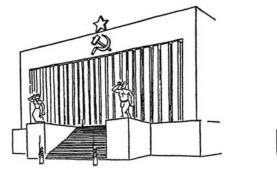
The classical architecture, which established itself in 1930s, had two distinct advantages "recognition and universality."³² Classical language and hierarchy of the buildings expressed through monumentality was the most easily understood and conveyed concept, which gave sense to the government power and ideology.³³ Irrational aesthetic perception is no less important as well.³⁴ Although technical possibilities and new architectural concepts were advanced, the aesthetic perception was still very conservative. Avant-garde architecture was so new and innovative that the society just did not have time to adapt to

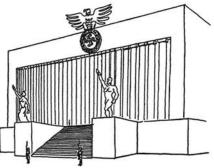
³¹ **Golomstock, Igor** - Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China, 2011, p. 29.

³² Kostof, Spiro - A history of architecture: settings and rituals, 1995, p. 717.

³³ "Most European nations had a classical episode in their architectural past they could point to in defense of this latest revival. Russia had St. Petersburg, Germany the Neoclassical legacy of Schinkel and his contemporaries, Italy [...] the long acient career of Rome. For all of them the issue was the expression of power, an architecture that would project order, stability, grandeur, enduringness. It was the failure of the International Style to communicate on that level that ultimately disqualified it in the public realm." **Kostof, Spiro** - *A history of architecture: settings and rituals*, 1995, p. 717.

³⁴ Considering the tension between functional and aesthetic values (between rationalism and irrationalism) that was important at the beginning of the 20th century, and despite the fact that there was a strong feeling that the past is different from the present (new technological possibilities, new spatial concepts), however, the priority in architecture was still given to artistic expression, rather than functionality.





21. "Monumental" architecture in Soviet Russia and Nazi Germany, 1938.

it. As observed by Sigfried Giedion in his book *Architecture you and me, the diary of a development* (1958) – "those govern and administers may be the most brilliant men in their fields, but in their emotional or artistic training, they reflect the average man of our period. [...] The thinking may be developed to a very high level, but the emotional background has not caught up with it. It is still imbued with the pseudo-ideals of the nineteenth century. Is it, then, any wonder that most [...] decisions made for urban planning, monuments, and public buildings are without contact with the real spirit of the period?"³⁵ Therefore, in 1930, the artists returned to the Ancient Greece, ancient Rome's heritage and sought new inspiration in the classical traditions and monumentality. [Fig. 21]

However, despite the universal *return to order*, it is important to emphasize that this period was not the retrospectivism or repetition of the previous styles.³⁶ The regimes wanted the monumentality to be both "modern and eternal".³⁷ This was an attempt to create a new architecture that combines easily recognizable classical forms and the "austere simplicity of modern functional architecture."³⁸ This trend was mentioned for the first time by historian Henry-Russell Hitchcock. His term *The New Tradition*, coined in 1929, described the newly developing tradition, "a consciously modernized historicist style."³⁹

Jeffrey Herf in his book *Reactionary Modernism: Technology, Culture and Politics in Weimar and the Third Reich* (1984) wrote about such a complex expression of modernism-historicism in the interwar Germany but more in the philosophical context.

³⁸ *Ibid*, p. 717.

³⁵ **Giedion, Sigfried** - Architecture you and me, the diary of a development, 1958, pp. 30-31.

³⁶ The concept of *order* signifies an archetypal, recognizable system, usually connected with Classicism and tradition.

³⁷ Kostof, Spiro - A history of architecture: settings and rituals, 1995, p. 717.

³⁹ Frampton, Kenneth - Modern architecture: a critical history, 2002, p. 210.



Giovanni Muzio: Ca'Brutta, Milan, 1922.
 Vladimir Shchuco: Lenin State Library, Moscow, 1929.
 Werner March: Olympic Stadium, Berlin, 1936.

His term *Reactionary Modernism*, after the publication, widely spread among other scholars and was used to describe art, literature, architecture, combining enthusiasm for new technology together with cultural conservatism. In architecture it was used to describe and extreme blend; the combination of technological innovations with the traditional aesthetics.⁴⁰

Another term to describe similar idea, *Novecento*, is expressed through a combination of tradition and modernity, which can be found through contradiction to ancient and modern, avant-garde and retrospectivism, ideology and formalism.⁴¹

The awareness of the avant-garde simplicity and stress on the texture of building materials together with monumentality and cultural conservativism became most visible under the totalitarian regimes. Originally, the term *The New Tradition* was used by Henry-Russel Hitchcock to generally describe the trend, in Nazi Germany the period became known as *Reactionary Modernism*. In Italy, the same trend occurred through terms *Stile Littorio* and *Novecento*, while in Russia this phenomenon had no specific term but to a certain extent, *Socialist Realism* of the 1930s, also stayed in touched with Modernism. [Figs. 22-24]

The *Reactionary Modernism* of Nazi Germany most visible in the works as Werner March Olympic Stadium in Berlin (1936), Paul Bonatz Autobahn bridges, and Albert Speer Zeppelinfeld in Nurenberg (1933). *Stile Littorio*, the unofficial style of the fascist Italy in the 1930s, with its leading architect Marcello Piacentini and his exemplary project for the University City of Rome (1935). The best known *Novecento* building is by Giovanni Muzio Ca' Brutta in Milan (1922). In the case of Russia reactionary modernism is seen in

⁴⁰ **Ibelings, Hans** - *European architecture since 1890*, 2011, p.161.

⁴¹ Borsi, Franco - The monumental era: European architecture and design 1929-1939, 1987, pp. 9-10.



German and Soviet pavilions in Paris International Exhibition, 1937.
 Alexander Nürnberg: Baltic pavilion, Paris, 1937.
 Francisco Keil do Amaral: Portuguese pavilion, Paris, 1937.

Vladimir Shchuco Lenin State Library in Moscow (1929), Nikolai Ladovsky Metro Station in Moscow (1935), and Alexey Shchusev Marx Engels Lenin Institute in Tbilisi (1938).

The term *Reactionary Modernism* may be taken as evidence of the failure of abstract form to communicate and is best suited for describing architecture not only in fascist Italy and Nazi Germany, but generally in the world in 1930-1945, when the majority of architects tried to combine progress and tradition. It was expressed by modernized baroque style (neo-baroque) in urban planning, and by modernized classicism (neo-classicism) in building design.

Finally the period of *retour à l'ordre* culminated in the Paris International Exhibition of 1937, where democracies and the dictatorships tried to influence the public taste. There were buildings planned in Modernist traditions of the 1920s, such as the Spanish pavilion by Josep Lluís Sert. However, it was modernized classicism of the 1930s became the leading style of the exhibition.

The main focus point of the exhibition became German and Soviet pavilions placed opposite to each other. [Fig. 25] It was a skillfully planned *mise-en-scène* seeking to highlight the ideological differences between the two powers. The Soviet pavilion designed by the architect Boris Iofan consisted of a stepped podium with a sculptural group by Vera Moukhina. The "Industrial Worker and Collective Farm Girl" with a hammer and sickle raised victoriously above their heads carried the generally accessible ideological message. On the opposite side stood the German pavilion a vertical tower shaped by massive pillars created by Albert Speer. As in the Soviet pavilion, the sculptural topping played an important ideological role, in this case the eagle, national symbol of the Third Reich, holding a swastika in its claws.

Although the Soviet Union and German pavilions attracted the most visitors of the exhibition, other countries, including Lithuania and Portugal, equally sought to draw attention to themselves. [Figs. 26, 27] Paris International Exhibition of 1937 was the first introduction of independent Lithuania in the international arena. "The importance of art and artistic culture in general for the country's representation abroad was stressed from the first year of independence. Politicians, diplomats had no doubt that culture is the most appropriate tool to introduce Lithuania to the world."⁴² Lithuania, Latvia and Estonia had a joint pavilion of the Baltic States in the exhibition. The pavilion of Scandinavian modern style was designed by Estonian architect Aleksander Nürnberg, facade of which was decorated by Lithuanian Juozas Mikėnas' relief depicting a guardian angel, who accompanies three small Baltic sisters along the seaside.⁴³ As noted by art historian Yvonne Brunhammer, the Paris International Exhibition of 1937 revealed the scale and measures of using art for propaganda.

Final considerations

It is hard to deny the obvious fact that "there are substantial differences between the traditionalists and the avant-garde modernists: their worldview (hierarchical versus egalitarian), their approach to space (closed and bounded versus open and unbounded), and their views on the making of architecture (craft versus industry) and its use (attention to the ceremonial aspects of occupying a building versus an emphasis on functionality)."⁴⁴

However, in many respects, the artistic and cultural situation in the interwar Europe was much more complicated than it would be possible to describe it explicitly in one or another term. Most of the prevailing trends overlapped with each other thus creating

 ⁴² Jankevičiūtė, Giedrė - Dailė ir valstybė: dailės gyvenimas Lietuvos Respublikoje 1918-1940, 2003, p. 53.
 ⁴³ Ibid, p. 22.

⁴⁴ Borsi, Franco - The monumental era: European architecture and design 1929-1939, 1987, p. 157.

exceptionally distinctive combinations of architectural styles. Hans Ibelings distinguishes the main currents that prevailed in the interwar Europe: functionalism, expressionism, Art Deco, monumentalism, classicism, traditionalism and regionalism.⁴⁵

In reality, modern architecture in the interwar Europe was not so Spartan and functional "white box" as we know from the works of such geniuses as Le Corbusier, Walter Gropius, Hannes Meyer or Mies van der Rohe. It was expressed through traditionalism mixed with avant-garde modernism, when not only white plaster, but also color, texture, traditional materials such as limestone, paint were used for decoration; arts and crafts productions was chosen instead of industrial materials; rooms were arranged hierarchically and not always resulted from clean functional planning, additional decorative elements such as balconies or roofs were used, monumentalism expressed through symmetry was sometimes used as well.

Exactly the same dualism, just from the other side, is reflected in the architecture of totalitarian regimes. On the one hand, the modern avant-garde architecture was rejected as unsuitable to represent the ideology of these countries, especially speaking of important state buildings, but on the other hand, modern technology and abstract monumentalism were not completely rejected. It was a complex symbiosis between architectural traditions (ancient Greek and Roman architectural heritage) and modern technology.

A clear divide between modernism and traditionalism occurred only after the Second World War, when the classical language suddenly disappeared from the architectural discourse, with the exception of the Soviet Union. Kenneth Frampton suggests that this disappearance was caused by an ideological climate in the Western Europe which was hostile to any kind of monumentality. The New Tradition which was used as an

⁴⁵ Ibelings, Hans - European architecture since 1890, 2011, pp. 153-154.

instrument of propaganda and national policy of the totalitarian regimes was now regarded as anathema by the Western, capitalist-oriented community. Moreover, architecture had lost its position to less permanent but cheaper and more flexible forms of propaganda such as cinema, radio and television.⁴⁶ So by 1945, the Modernist *International Style*, which had no undesirable political connotations, was virtually the most spreaded style.

⁴⁶ Frampton, Kenneth - *Modern architecture: a critical history*, 2002, pp. 222-223.

2 | modern versus traditional: soviet russia, fascist italy, nazi germany

Communist Russia: Russian avant-garde 1917-1932

The aim of the October Revolution in 1917 was to radically transform the old Tsarist Russian political and economic structures. The new political and economic revolution was based on socialist policy and inspired by Marxist ideas. The supreme power in this system belonged to a single party, the Communist Party. The aim of this party was to create a well-organized and classless society without private property. The government owned the principle of distribution of goods: "from each according to his ability, to each according to his needs".⁴⁷

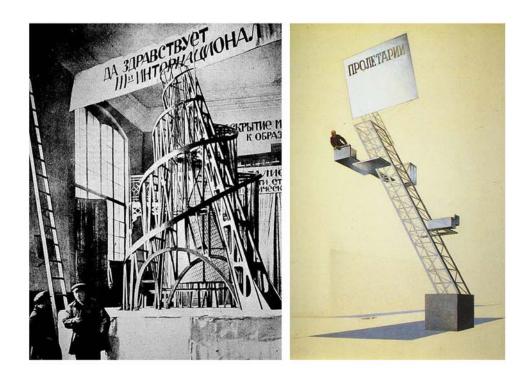
Vladimir Lenin was the leader of this newly established Socialist society and believed that art and architecture can be used as an instrument for social change and the builder of the new environment. In his view, the new art should be as radical and looking to the future as his political vision.

A few days after the October Revolution, the Bolshevik Party Central Committee called progressive avant-garde artists, writers, designers and entrusted them with the task of creating a new aesthetic to a new society.⁴⁸ They had been asked to find a new form that would express all the novelty of the revolution.

If the nature of the revolution consists of two radical actions: deconstruction, i.e. response to the previous regime, and construction, the proposed new social, cultural, economic and political system, so Russian avant-garde artists fully understood the essence of the revolution and their task to "construct everything anew". Although there were several avant-garde movements in the country, they were united by two common features: a

⁴⁷ A slogan popularized by Karl Marx in his book *Critique of the Gotha Program* (1875) as the foundation-stone for the communist society.

⁴⁸ **Golomstock, Igor** - Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China, 2011, pp. 2-3.



28. Vladimir Tatlin: Monument to the Third International, 1920, proposal.29. El Lissitzky: Lenin's tribune, 1920, proposal.

belief in new materials and technology, as well as a complete denial of historical continuity. Russian avant-garde artists enthusiastically embraced not only the new task, but also the concept of *tabula rasa* - to start everything from a white sheet of paper.

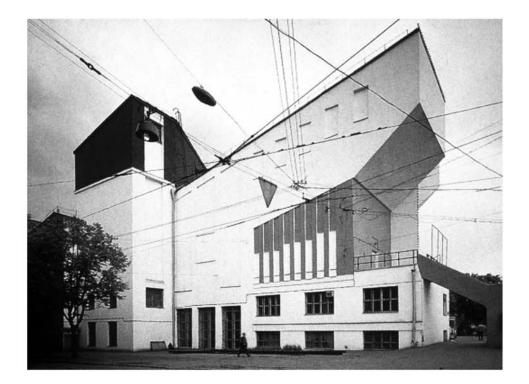
During the early revolution period, Vladimir Tatlin and Kazimir Malevich were avantgarde leaders. Although they both focused on different things, Vladimir Tatlin focused on experimental sculptures (focus on industrial materials and machine aesthetics), while Kazimir Malevich – on abstract painting (focus on abstract shape and color), it was them who gave impetus to the emergence of new formal language that was purified during the post-revolutionary period.

After the communist revolution of 1917 the young Soviet Union used Constructivism for its own propagandistic purpose. An ideology which broke all chains with the past gave wings to the boldest designs of the time. The office and conference building for the Third International by Vladimir Tatlin (1919) and El Lissitzky's design for Lenin's tribune (1920) represented not only the revolution in political field but also gave birth to new order in architecture. [Figs. 28, 29] Although they never got through the design stage, they turned out to be beyond the technical and financial capacity of its time, these projects became manifesto of the principles of Constructivist architecture – to break all links with the past and embody the *machine aesthetics*.

Two important groups were formed during the post-revolutionary period: the Rationalists of A.S.N.O.V.A⁴⁹ and the Constructivists of O.S.A⁵⁰. In fact, theoretical differences between these groups are insignificant, so they are often called in general term

⁴⁹ The Association of New Architects (A.S.N.O.V.A) was set up in 1923 by Nikolai Ladovsky, other members were Vladimir Krinsky, Nikolai Dokuchaev, El Lissitzky, Konstantin Melnikov in early stage and others.

⁵⁰ The Union of Contemporary Architects (O.S.A) was founded in 1925 by Moisei Ginzburg and Alexander Vesnin, organization also included artists as Alexander Rodchenko, Alexie Gan, Varvara Stepanova and others.



30. Konstantin Melnikov: Rusakov Workers Club, Moscow, 1927/1929.

the Constructivists. Both groups sought to create a new architecture that would reflect the new Socialist society and ideology. There are several main aesthetic differences between the two groups. The Rationalists focused on the new, abstract architectural forms, which were often reflected by experiments and utopian projects. They tended to believe that certain formal shapes and patterns of design had a direct effect on the psychology of the spectator and that particular design had a power to elicit specific emotions of those who viewed the structure of a building.⁵¹ Meanwhile, the Constructivists believed that architecture is primarily a science, function of which is "to construct society: through architecture". The Constructivists based their aesthetic expression on open structure. However, their main objective was to create a new structure in general to integrate architecture and social policy. This was reflected in the new building typology. They turned to the creation of collectivist dwellings and social condensers such as workers clubs. [Fig. 30]

The situation changed after Lenin's death in 1924. Avant-garde modern architecture gradually lost its leading position, until it was completely ousted by more hierarchical, monumental, eclectic-classical architecture. As noted by Igor Golomstock: "the end of the avant-garde was as natural as that of a fish deprived of water. [...] The State had no need to ban the avant-garde – it was enough to transfer it to a self-financing footing."⁵²

There are several main reasons why Avant-garde Modernists were defeated by Socialist Realists. Primarily, "their projects incorporated not only a new, revolutionary vocabulary but also a new, revolutionary technology. This technology did not exist, however, at all events not in the everyday life of the Soviet Union. The country was short of glass, steel,

⁵¹ Curtis, William J.R. - Modern architecture since 1900, 1987, p. 137.

⁵² **Golomstock, Igor** - Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China, 2011, p. 36.

and concrete, and there was also a shortage of skilled workers. Not so for the Classicists. Their projects might look exclusive, but they were more closely adapted to the realities of existing technology, materials and skills. The necessary resources were less available to the Modernists than they were to the Classicists.⁵³

One of the main accusations at the avant-garde was that "it was elitist, bourgeois and exclusive in its focus on formal and aesthetic problems, incomprehensible to the masses, and even anti-popular"⁵⁴, understood only by the minority of professional designers. "Experimental modern architecture was poorly rooted both among the people and among the political leaders. It derived its main support from the radical intelligentsia, in Russia and elsewhere. But that kind of support quickly declined during the 1930s."⁵⁵

Lenin himself reached the point, where modernism seemed antisocial to him. He looked at modern artists suspiciously with a fear not being able to control their unpredictable activity. In 1919, Lev Kamenev wrote: "The workers' government must decisively stop the support which it has given to all kinds of Futurists, Cubists and Imagists – all those contortionists – they are not proletarian artists and their art is not ours. They are the product of bourgeois corruption and bourgeois degeneration."⁵⁶ Modern avant-garde architecture was accused of being utopian and art for art's sake.

Stalinist ideologues decided that the light and elegant solutions of constructivists have no monumental quality, which is necessary to translate ideology into monumental construction. Buildings, which were important to the state, were expected to have

⁵³ **Aman, Anders** - Architecture and ideology in Eastern Europe during the Stalin era: an aspect of Cold War history, 1992, p. 54.

⁵⁴ **Golomstock, Igor** - *Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China*, 2011, p. 24.

⁵⁵ Ibid, p. 54.

⁵⁶ Benevolo, Leonardo - *History of modern architecture, volume II*, 1992, p. 559.

monumentality, axiality and grandiose scale, decoration such as paintings, sculptures and reliefs. Therefore, classicism architecture had many more advantages: "it symbolized the civic virtues of ancient civilization, was normally associated with revolutions and had been the official style of the Tsarist Empire in the 18th and 19th centuries."⁵⁷

Socialist Realism: 1932-1955

After Lenin's death in 1924, the Soviet Union was close to economic collapse. After Joseph Stalin became leader of the USSR, he wanted to modernize the country. Together with the Communist Party he began more strict control over the country's economic, political and cultural life. A series of Five Year Plans accelerated urbanization and industrialization throughout the country. Millions of peasants had to abandon their small, primitive holdings and moved to the "cold and inhuman" cities to work in the factories, other part, had to set up in the collective farms. People's dissatisfaction with the government grew and the cultural radicalism reached its apogee. However, Stalin managed to take advantage of this situation. He did not only support the new conservative movement of artists, but also acquitted the old artists of the Czarist-era. "Everything positive was associated with this new Traditionalism. Everything negative – from Trotsky to Wall Street – was lumped together with vanquished Modernism."⁵⁸

The competition for the Palace of the Soviets in 1931-1933 was the first strong blow to the modern architecture. The competition included entries from the most influent modernist architects from all over the world, including projects by Le Corbusier, August Perret, Walter Gropius and a large number of contributions from soviet architects, individuals

⁵⁷ *Ibid*, p. 560.

⁵⁸ Aman, Anders - Architecture and ideology in Eastern Europe during the Stalin era: an aspect of Cold War history, 1992, p. 55.

and groups like A.S.N.O.V.A, O.S.A and V.O.P.R.A. But the modern architecture was rejected in favor of Boris Iofan's monumentality and neo-classical design.

The final end to an era of experimentation was brought by the Central Committee of the Communist Party in 1932, by the decree "On Structural Changes in the Literary and Artistic Organizations".⁵⁹ The resolution outlawed all independent associations. All those engaged in any kind of creative activity – architects, writers, painters, sculptors, and filmmakers – were ordered to form unions, which under the guidance of the Communist Party, had to "create highly artistic forms that will fully satisfy the aesthetic needs of the members of a socialist society."⁶⁰ By July 1932, all independent groups as O.S.A, A.S.N.O.V.A and V.O.P.R.A, their members were incorporated in the Union of Soviet Architects (SSA).⁶¹ Russian brother of the Bauhaus School VKhUTEIN (the former VKhUTEMAS) was closed.

From 1932 onward, modern architecture was trust aside in favor of *Socialist Realism*. And if the basic concept of Modernism was *form follows function*, corresponding slogan in *Socialist Realism* were *socialist in content* and *national in form*.⁶² "Soviet architecture must strive for realistic criteria – for clarity and precision in its images, which must be easily comprehensible by and accessible to the masses."⁶³

The *Socialist Realism* did not become as an order to architects, but rather as an heavy pressure. "Through the nationalization of museums, private collections, systems of education and the media the State had a monopoly of artistic life", the free market simply

⁵⁹ Tarkhanov, Alexei; Kavtaradze, Sergei - Stalinist architecture, 1992, p. 44.

⁶⁰ Kopp, Anatole - Town and revolution: Soviet architecture and city planning 1917-1935, 1970, p. 214.

⁶¹ **Golomstock, Igor** - Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China, 2011, p. 81.

⁶² **Aman, Anders** - Architecture and ideology in Eastern Europe during the Stalin era: an aspect of Cold War history, 1992, pp. 49-50.

⁶³ Tarkhanov, Alexei; Kavtaradze, Sergei - Stalinist architecture, 1992, p. 49.



Alexei Shchusev: Marx-Engels-Lenin-Stalin Financial Institute, Tblisi, 1934/1938.
 Nikolai Ladovsky: Metro Station, Moscow, 1935.
 Stalinist skyscraper, Moscow, 1945.

did not exist. The State "was the only commissioner and consumer of art."⁶⁴ "And in a society that functioned according to the principle "if you don't work, you don't eat" anyone who was neither working for the state nor a member of an artists' union was considered a parasite, and so liable to be sentenced and exiled to the most distant regions."⁶⁵ Soviet Union no longer allowed emigration. The most important avant-garde architects – Konstantin Melnikov, Ivan Leonidov, El Lissitzky, Vladimir Tatlin and others - took a vow of eternal silence.

To a certain extent, Soviet Classicism of the 1930s stayed in touch with Modernism, often in such a way that the motifs were traditional, but the composition was modern. The examples of this modernized neoclassicism are Vladimir Shchuco the Lenin State Library (1929) in Moscow, Nikolai Ladovsky the Metro station (1935) in Moscow and Alexey Shchusev the Marx Engels Lenin Institute (1938) in Tbilisi. [Figs. 31, 32]

"It soon became apparent that in the political climate of the thirties it was to serve, above all, as an ideological tool. Henceforth architecture had to be expressive, representative, oratorical. Every building, however modest its function, had henceforth to be a monument. [...] monument to an omniscient leader [...], around which the notorious cult was being established."⁶⁶

After the war, the cult concentrated around the personality of Joseph Stalin was accompanied by an ever-increasing trend towards representationalism over monumentalism. By then, the *Socialist Realism* adopted more complex, eclectic, picturesque architecture. The high-rise buildings became new "typology, an architecture

⁶⁴ **Golomstock, Igor** - Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China, 2011, p. 29.

⁶⁵ Ibid, p. 94.

⁶⁶ Kopp, Anatole - Town and revolution: Soviet architecture and city planning 1917-1935, 1970, pp. 227-228.

of victory."⁶⁷ They were both successors and substitutes for the Palace of the Soviets, eight of them were planned to be build in Moscow until the 1947. Furthermore, "the high-rise buildings fitted in with the type of urban planning introduced with Socialist Realism, as vertical accents to punctuate the skyline, indicating what was ideologically important."⁶⁸ The role of the vertical element was to create a symbol and location node in the flat Russian landscape. This new aesthetic method had its origins in the 16th and 17th century Russian architecture. [Fig. 33]

Socialist Modernism: 1955-1980

Up till the death of Stalin in 1953, the "wedding cake" aesthetics had spread through the whole communist block and only the decade known as the *Khrushchev Thaw* (1953-1964) can be viewed as a turning point back to the international tendencies: functionalism, line of the CIAM, and *International Style*.⁶⁹

Two decrees "Development of the means to improve, industrialize and reduce the cost of construction" and the famous "Removal of excess in architecture", both signed by Nikita Khrushchev in 1955, have become one of the most prominent symbols of this turn. The main message of the leader was to make the process of construction faster and cheaper. And, what had recently been proclaimed as *Socialist Realism* was now attacked as "wasteful, inflated, and in bad taste."⁷⁰ Probably this decree even today remains the sharpest boundary made by the leading power in the history of architecture.

⁶⁷ **Aman, Anders** - Architecture and ideology in Eastern Europe during the Stalin era: an aspect of Cold War history, 1992, p. 56.

⁶⁸ *Ibid*, p. 90.

⁶⁹ Tarkhanov, Alexei; Kavtaradze, Sergei - Stalinist architecture, 1992, pp. 181-182.

⁷⁰ Kostof, Spiro - A history of architecture: settings and rituals, 1995, p. 719.



34, 35. K. Vytas, V. Poškiene: Taxi parking garage, Kaunas, Lithuania, 1976.36. Prefabricated housing blocks, Kaunas, Lithuania, 1960s.

Promise of the Communist Party to provide every family with housing and thus eliminate the lack of apartments in the USSR within 10-12 years has become an important catalyst of processes.⁷¹

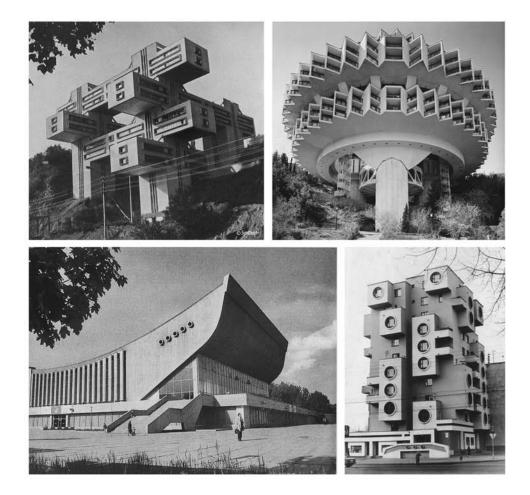
To carry out this challenge, the entire production machinery had to be reoriented; architectural experiments and individual expressions were no longer encouraged. There were no individual architectural practices left, only the collective design institutes. Even more, it was no longer desirable to design every building individually, instead so called "standardized projects" were created. It was a change that turned architecture from art to the construction industry, embodied in the slogan "speed up the pace of construction."⁷² Soviet modernization was now based on the "scientifically proved" ready-made examples, prefabrication and functionalist architecture, where the building aesthetics was based on economy and cheapness. [Figs. 34-36]

It meant that entire project making was not in the hands of one architect, but rather the all team of planners, where everything was carried out: from design to building equipment, from structural analysis to the department of economy. Such machinery of production usually left no space for creation, the speed of planning and construction, cost-efficiency and functionality of the building became the main principles, and all this led to extreme functionalist architecture.

The first phase of *Socialist Modernism* was maximally narrowed to the utilitarian origin of architecture, and the period between the 1955-1970s might be called the "grey mass" or "banal modernism".⁷³ It could be characterized by more pronounced functionality, poorer opportunities for artistic diversity and choice of materials. First of all, it was

 ⁷¹ Drėmaitė, Marija; Petrulis, Vaidas; Tutlytė, Jūratė - Architektūra sovietinėje Lietuvoje, 2012, p. 158.
 ⁷² Ibid, p. 49.

⁷³ David Crowley had used terms in the lecture held in Vilnius, September 9th, 2010, titled "Fate of the last generation of ultra-modernist buildings in Eastern Europe under Communist rule."



 George Chakhava: Ministry of Transportation, Tbilisi, Georgia, 1974.
 Igor Vasilevsky: Druzhba Holiday Center Hall, Yalta, Ukraine, 1984.
 Eduardas Chlomauskas, Zigmantas Liandsbergis, Jonas Kriukelis: Concerts and Sports Hall, Vilnius, Lithuania, 1964/1971.
 Residential house on Minskaya street, Bobruisk, Belarus, 1980s. manifest in the construction of typical residential blocks, kindergartens, schools, culture centers and other public facilities where the aesthetic purposes of architecture were almost entirely abandoned, turning them into "faceless" structures for utilitarian purposes.⁷⁴

The last stage was the 1970s-1980s, which showed a growing number of stylistically more expressive objects. Despite of the fact that some projects still reflected and approach towards engineering rather than art, but it was when "significant exceptional buildings"⁷⁵ or "cosmic architecture"⁷⁶ was born. While the focus on engineering in Western countries was commonly associated with the stylistic direction of *high-tech*, which expressively displayed building structures and technologies, the means of architectural expression in Soviet case was essentially limited by poor technical capabilities. [Figs. 37-40]

Although *Socialist Modernism* gained certain specific features determined by the social, economic and political conditions of the Soviet Union, but at the same time, it followed the common logic of 20th century's architectural history.

Fascist Italy: 1922-1945

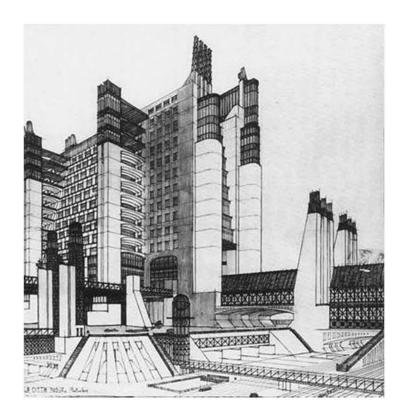
Benito Mussolini's march on Rome in October 1922 established the first Fascist regime in Europe. Tommaso Marinetti "saw Fascism as the realization of the minimum Futurist program."⁷⁷ This was the reason why Mussolini's revolution was welcomed with great enthusiasm by the futurists and rose quickly thanks to radical art forms.

⁷⁴ Drėmaitė, Marija; Petrulis, Vaidas; Tutlytė, Jūratė - Architektūra sovietinėje Lietuvoje, 2012, p. 104.

⁷⁵ David Crowley had used the term in the lecture held in Vilnius, September 9th, 2010, titled "Fate of the last generation of ultra-modernist buildings in Eastern Europe under Communist rule."

⁷⁶ Referring to the book by Frederic Chaubin CCCP: Cosmic Communist Constructions Photographed (2011).

⁷⁷ **Golomstock, Igor** - Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China, 2011, p. 3.



41. Antonio Sant'Elia: La Città Nuova, 1914.

Some aspects of pre-war Futurist manifesto was incorporated into fascist rhetoric: the revolutionary concern for the restructuring the society, the cult of war and its worship of the machine, the concept of *tabula rasa*, and the refusal of classical academic architecture.⁷⁸ [Fig. 41]

However, the futurists did not become the official Italian Fascist art. Futurist architectural visions, which were created before the war, did not come out from the sketching stage. This occurred for several reasons. On the one hand, the First World War reduced the ranks of the futurists. Sculptor and theorist Umberto Boccioni and architect Sant' Elia died on the battlefields, while some of the other younger members left the futurist movement and turned into a conservative *Novecento*, where they looked back at the past and "hoped to find constant rules and certain permanent values."⁷⁹

Another, perhaps the most important reason was that the futurists saw "Italy greater than the Italy of the past, more modern, more courageous, more advanced than other nations."⁸⁰ In order to implement these principles, they insisted to get rid of burdensome past and create everything in the new spirit.

Meanwhile, Mussolini's political program focused on the restoration of Italy as the strong and majestic as the old empire. In respect of art, this doctrine was expressed in terms *romanità* and *italianità*⁸¹, which were understood as a kind of Italian cultural superiority

⁷⁸ Frampton, Kenneth - Modern architecture: a critical history, 2002, p. 3.

⁷⁹ Benevolo, Leonardo - *History of modern architecture, volume II*, 1992, p. 562.

⁸⁰ **Golomstock, Igor** - Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China, 2011, p. 7.

⁸¹ *Romanità* evoked the internationally revered legacy of acient Rome, especially the age of Augustus, combining external strength and austere self-reliance. *Italianità* was an inward-looking concept of unity-in-diversity of a strong Italy grounded in vibrant, regional differences and in the heritage of the sturdily self sufficient *medioevo* (a term flexibly defined to include both the Middle Ages and the Renaissance). **Glendinning, Miles** - *The Conservation Movement: A History of Architectural Preservation Antiquity to Modernity*, 2013, p. 206.

over other nations and roots of which lie in the Roman antiquity and the Italian Renaissance.

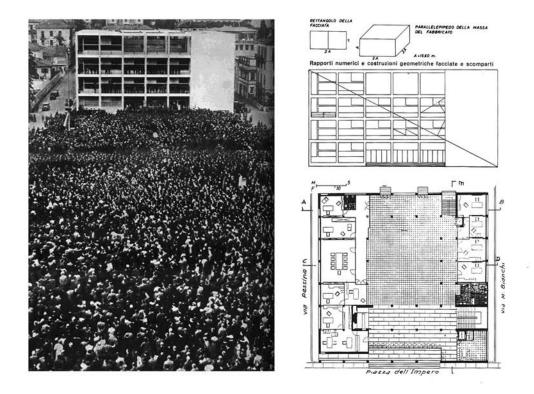
However, in order to ensure the superiority of the nation, one must rely on the versatility of classical culture and local traditions. In this respect, Mussolini's vision did not coincide with the futurist vision, as the futurists "saw the traditions of Italian antiquity and the Renaissance as a dead weight that fettered Italy's movement into the future, and turned her into a country of tomb stones."⁸²

Although the futurists did not become official style of Fascist culture, they did not become opposed to the regime. Duce was more tolerant than other leaders in Nazi Germany or Soviet Union. It was not necessary for artist in Italy to be a members of professional union in order to practice. Creative freedom of artists was not limited; there was no terror against them, including architects. They were free to publish their works in exhibitions, magazines, sell their works in the free market, at home or abroad. Architects had to limit themselves only in state commissions by following the general ideological directions, mainly, the taste of Italian authorities.

Apart from the futurist architectural utopias before the First World War, Italy had no modern architectural traditions. Modern movement in Italy began to exist under the fascist system, so modern architecture was not met with hostility, on the contrary, it was successfully incorporated into the state ideology.

In 1931-1936, fascist Italy had two rivalrous architectural currents. Neo-classic Marcello Piacentini stood on one side, while Giuseppe Terragini, representative of radical modern architecture, stood on the other. Both these architects struggled between two alternative

⁸² **Golomstock, Igor** - Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China, 2011, p. 39.



42, 43. Giuseppe Terragni: Casa del Fascio, Como, 1932/1936.

interpretations of the classical tradition – rationalist versus the historicist and both secretly hoped that their particular brand of architecture will be chosen as official architecture of the fascist state. However, until 1940, Duce embraced the both unable to decide which style of architecture is the most suitable for his new empire.

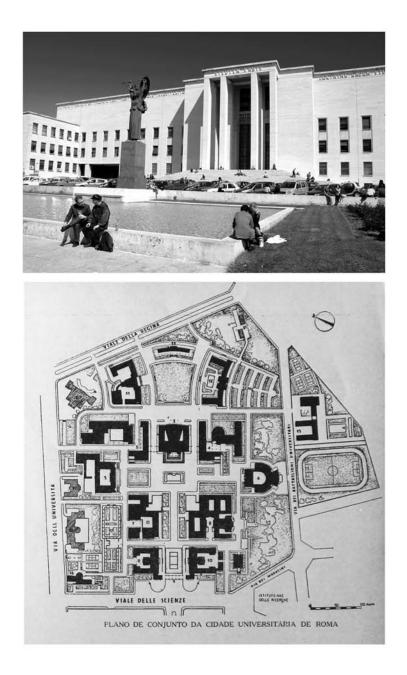
Giuseppe Terragini, who belonged to the Rationalist *Gruppo 7* together with six other architects from Milan, "sought to achieve a new and more rational synthesis between the nationalistic values of Italian Classicism and the structural logic of the machine age."⁸³ In 1932, Terragini produced canonical work of the Italian Rationalist movement Casa del Fascio with harmonious blend of *modernità* and *italianità* - the equal balance between the aesthetic demands of modernity and the classical theory of proportions. [Figs. 42, 43] Although Terragini and Italian Rationalists continued to exist, after 1935, they lost their influence and most of the state orders were given to conservative monumentalist Marcello Piacentini.

Both Terragini and Piacentini "were particularly concerned, with the comparison with archaism, to make their position known to ordinary people, who tended to judge all tendencies through retrospective comparison."⁸⁴

Terraginis' works were balanced synthesis between classic and modern, which merged into a cohesive aesthetic, while Piacentini's *Stile Littorio* did not have such sensitivity, it was classicism reduced to its basic stereometric forms. In 1932, Marcello Piacentini was responsible for the general plan and designed the public parts of "Città Universitaria" in Rome. "The possibility of a co-existence between neo-eclectic historicism (in purist-

⁸³ Frampton, Kenneth - Modern architecture: a critical history, 2002, p. 203.

⁸⁴ Benevolo, Leonardo - *History of modern architecture, volume II*, 1992, p. 564.



44, 45. Marcello Piacentini: Città universitaria, Rome, 1932/1935.

classicist terms) and modernism (in rational constructivist terms)^{*85} are best reflected in this particular Terraginis' work. [Figs. 44, 45]

The situation began to change after Mussolini's visit to Germany in 1937. Duce returned enormously impressed with Nazi's monumental classicism and cultural "achievements". "As his links with Hitler grew – their "Pact of Steel" was signed in May 1939, and Italy entered the war on Germany's side in June 1940 – Mussolini's desire to emulate and exceed the Nazis' cultural "achievements" grew too. His Manifesto of Racial Scientists, published in the summer of 1938, inaugurated a campaign of state-sanctioned anti-Semitism and, taking cue from Hitler, his followers were quick to dismiss modernist art and architecture as the work of Jews, Bolsheviks, or worst of all, Bolshevik Jews. Although the debate continued into the early 1940s, the Rationalists who submitted competition entries for the various buildings of E42-XX were forced by the prevailing political climate to discard their initial dreams of a new Rome of concrete and glass and at least provide some clear cultural references to Italy's imperial glories."⁸⁶

Esposizione Universale di Roma '42 competition is considered to be the end of modern architecture era in Italy. [Fig. 47] Marcello Piacentini together with Giuseppe Pagano, Luigi Piccinato, Ettore Rossi and Luigi Vietti collaborated for the master plan of EUR. The definitive plan was published in two magazines *Architettura* and *Casabella* in 1937 and commented on with almost identical words: "this complex has been conceived with a new spirit and aim, though ideally it is linked to the example of our glorious past and particularly to the great art of Rome."⁸⁷

⁸⁵ Borsi, Franco - The monumental era: European architecture and design 1929-1939, 1987, p. 27.

⁸⁶ **Tinniswood, Adrian** - Visions of power: ambition and architecture from ancient Rome to modern Paris, 1998, p. 150.

⁸⁷ Benevolo, Leonardo - History of modern architecture, volume II, 1992, pp. 573-574.



46. Giovanni Guerrini, Ernesto Bruno La Padula, Mario Romano: Palazzo della Civiltà Italiana, Rome (EUR), 1938/1943.
47. Poster for the Universal Exhibition (EUR), exhibiting Libera's project for an arch, 1942.
48. Adalberto Libera: Palazzo dei Ricevimenti e dei Congressi, Rome (EUR), 1938/1954. The corporation which was responsible for the development of EUR, called *Ente Autonomo Esposizione Universale di Roma*, was created in 1936. The same year some of the buildings were assigned directly to architects: Gaetano Minnucci – offices of the Ente, Arnaldo Foschini – the church of Saints Peter and Paul. For other projects, the Ente held competitions. Of these, the most important are the following: Adalberto Libera – Palazzo dei Ricevimenti e dei Congressi; Giovanni Guerrini, Ernesto la Padula, Mario Romano – Palazzo della Civiltà Italiana; Luigi Moretti and the team of Francesco Fariello, Saverio Muratori, Lodovico Quarioni – Piazzia Imperiale and surrounding buildings; Mario de Renzi and Gino Pollini – Piazza delle Forze Armate and surroundings.⁸⁸ [Figs. 46, 48]

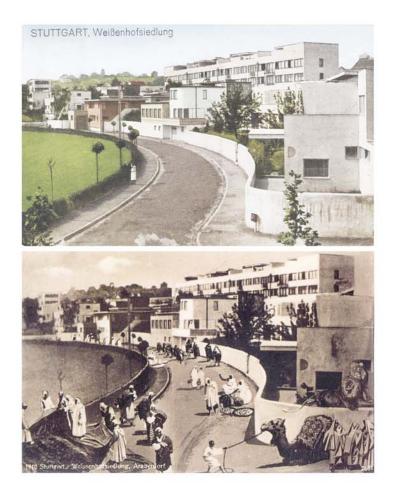
However, as noted by Leonardo Benevolo "by following 'ideal links' back to Roman times architects would arrive at one result only, neo-classical conformism."⁸⁹ Mussolini drew parallels between the Fascist State and Imperial Rome, so classical monumentality was considered to fit the best to his new Roman Empire.

Marla Susan Stone distinguishes three main phases of the fascist culture: *bureaucratic stabilization* (1925-30), the period when bureaucratic institutions were created and basic aesthetic principles established. *Cultural experimentation* (1931-36), the second phase, when all opposing styles, from modern to traditional, from futurism to neo-classicism, received State's aid and support. *Radicalization* (1937-1943) is the final phase when regime abandoned stylistic pluralism and chose the official style.⁹⁰

⁸⁸ Kostof, Spiro - The third Rome 1870-1950: traffic and glory, 1973, p. 74.

⁸⁹ Benevolo, Leonardo - History of modern architecture, volume II, 1992, p. 574.

⁹⁰ Stone, Marla Susan - The Patron State: Culture & Politics in Fascist Italy, 1998, p. 7.



49. Weissenhofsiedlung in Stuttgart and Nazi anti-propagandistic postcard "Arab village", 1940.

Nazi Germany: 1933-1945

"On January 30, 1933, German President Paul von Hindenburg appointed Hitler chancellor, and Hitler moved into the old Chancellery north of Leipziger Platz on Voss Strasse. On June 30, 1934, Hitler purged all rivals both in the Party and in the state. On the death of Hindenburg on August 2, 1934, Hitler proclaimed himself head of state."⁹¹ The persecution of Jewish citizens, political dissidents and intellectuals, and other minorities began immediately.

*Neue Sachlichkeit*⁹² movement, which was active in Germany in 1918-1933, was looking for the new concepts and new formal language of architecture that would respond to the social changes brought by the war. The problem of housing became essential preoccupation of post war modern architects. After Hitler's rise to power in 1933, all modern housing schemes with flat roots, such as *Siedlungen* in Berlin or *Weissenhof* in Stuttgart and those architects who designed them were immediately called the communists, despite of the fact that only a few architects were in fact supporters of Marxism. [Fig. 49] The right-wing critics saw modern architecture as something "rootless, materialistic, uncomfortable, inhuman, Communist and anti-German."⁹³ Meanwhile, other critics focused on the alleged impracticality of modern buildings: "their leaking flat roofs, the peeling of their white plaster surfaces, the rusting of their

⁹¹ Balfour, Alan - Berlin: the politics of order 1737-1989, 1990, p. 75.

⁹² From about 1924, the Weimar Republic was looking for an objective (*sachlich*) and functional style that would be suited to the large-scale, low-cost housing developments. The task was enthusiastically embraced by German modernists gathered mainly around Ernst May, Walter Gropius and his Bauhaus school. After some successful realizations, Weissenhofsiedlung erected outside Stuttgart in 1927 or Ernst May's first work for Frankfurt, the Bruchfeldstrasse development of 1925, architects proclaimed that only a stark, geometrical style of buildings, where external form should follow internal function, flat-roof, larger windows, well lit and ventilated rooms, and prefabricated details, was suitable style for the 20th century architecture. **Banham, Reyner** - *Theory and Design in the First Machine Age*, 1992, pp. 272-274.

⁹³ Curtis, William J.R. - Modern architecture since 1900, 1987, p. 212.

windows."⁹⁴ However, most importantly, modern architecture was associated with democratic Weimar Republic and was considered to be equivalent to useless or dangerous structures.

Such a drastic and even racist attitude towards modern art and architecture is very closely related to the most complicated Hitler's personality. At the time when Mussolini in Italy or Stalin in the Soviet Union took control of art, the reason for this was that they wanted to control all aspects of life, including art. Even the choice of official style was accompanied "not by personal taste but by political instinct and the demands of the ideological struggle."⁹⁵ However, the relationship between Hitler and art is different, very personal. He even once said that if Germany had won the First World War, he would have become "not a politician but an architect - as great an architect as Michelangelo."⁹⁶

In his youth, Hitler was fascinated by art and architecture. He undoubtedly had graphic expression ability, as can be seen from his watercolor paintings of traditional landscapes. However, this flat technique and conservative academic style prevented him from studying in Vienna Academy of Fine Arts.⁹⁷ It can be assumed that this unfulfilled dream was the reason why the country's all major architectural projects were born in minds of two central figures, Hitler and his personal architect Paul Ludwig Troost, after his death in 1934, successfully replaced by Albert Speer. Hitler was more than a patron, he personally contributed to the architectural visions, and the architect's responsibility was to interpret and implement his fantasies.

⁹⁴ *Ibid*, p. 212.

⁹⁵ **Golomstock, Igor** - *Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China*, 2011, p. xiii.

⁹⁶ *Ibid*, p. xiii.

⁹⁷ **Taylor, Robert R.** - *The Word in Stone: the Role of Architecture in the National Socialist Ideology*, 1974, pp. 15-17.





50. Adolf Hitler: Triumphal Arch, 1924. 51. Adolf Hitler: Domed Hall, 1924. In 1924, Hitler made two drawings – one of a domed hall, the other of a triumphal arch. "I never doubted," Hitler told Speer, "that someday I would build those two edifices."⁹⁸ [Figs. 50, 51]

From the early days several figures played a formative role in the National Socialist movement. Political philosophy and anti-semite ideas are sharply stated in Hitler's book Mein Kampf (My Struggle) of 1924. The leading Nazi ideologist Alfred Rosenberg, who studied architecture in Riga and later in Moscow, in Mythus des 20 Jahrhunderts (Myth of the 20th Century), published in 1930, explains his view of society based on racial purity, brought by the use of eugenics, and a rejection of Jews, the clergy, Communism, and culture of Weimar period. Professor Paul Schultze-Naumburg was an architect and extreme anti-semite. In his book Kunst und Rasse (Art and Race) of 1928, he compared shapes of the deformed, sick, mentally ill people with modern art and painting to show the sick nature of modern art and artists. Another important book of the same architect and theorist is Kampf um die Kunst (the Struggle over Art) published in 1932, in which he criticized Neue Sachlichkeit architecture in the Weimar Republic, accusing it of cosmopolitanism which has lost its connection to the home-land. "He praised the pitched roofed German house with its roots sunk deep into the soil, contrasting it to the flatroofed architecture of an uprooted people."99 Though many played part in creating the vision of National Socialism, Hitler was the conductor.

Even before the National-Socialists came to power, avant-garde modern art was systematically criticized. Political debates continued throughout the 1920s. The society was disappointed with the country's political and economic situation, and this

⁹⁸ Balfour, Alan - Berlin: the politics of order 1737-1989, 1990, p. 74.

⁹⁹ Frampton, Kenneth - Modern architecture: a critical history, 2002, p. 218.



52. Iwao Yamawaki: The End of the Dessau Bauhaus, 1932.

disappointment was expressed by the "specific dislike of avant-garde architecture, as a symbol of that situation."¹⁰⁰

"The professional position of modern architects was linked, in Germany, mainly with public commissions and work on subsidized buildings [...] it had made architecture directly dependent on political power."¹⁰¹ During the years of the Weimar Republic, the private *clientèle* mainly consisted of Jews, and the Nazi Party elite became customers after Hitler's rise to power. Certain groups of artists and architects, mainly Jews and modernists, were banned from creating or they simply became unpopular.

Since Walter Gropius founded the Bauhaus school in Weimar in 1919, he made "every effort to keep the Bauhaus out of the bitter party quarrels, and confirmed the apolitical nature of the institution on every possible occasion."¹⁰² The school moved to Dessau in the beginning of 1925 and soon the director post was given to Swiss architect Hannes Meyer who continued to lead the school independently of all political trends. In 1932, when the Nazis came to power at Dessau they required the Bauhaus school to close and "it's sachlich façade (to be) capped by an "Aryan" pitched roof."¹⁰³ [Fig. 52] The Bauhaus was accused of promoting Bolshevik ideas and creating a politically incorrect art. The school moved into an old warehouse on the outskirts of Berlin and a year later was finally closed. The school of Bauhaus was the temple of avant-garde art and architecture and by closing it the Nazis showed that from now on the modern art is not welcome in Germany.

The implementation of Hitler's cultural policy began in 1933, when *Reichskulturkammer* (Reich Chamber of Culture) was created. It was divided into seven sub-chambers, each responsible for a specific area of the arts; music, film, theatre, literature, the press, radio,

¹⁰⁰ **Taylor, Robert R.** - The Word in Stone: the Role of Architecture in the National Socialist Ideology, 1974, p. 7.

¹⁰¹ **Benevolo, Leonardo** - *History of modern architecture, volume II*, 1992, p. 552.

¹⁰² *Ibid*, p. 423.

¹⁰³ Frampton, Kenneth - Modern architecture: a critical history, 2002, p. 129.

and the visual arts, or *Reichskammer der bildenden Künste*, controlled all artistic activity, including architecture.¹⁰⁴ The regulations of the Reich Chamber of Culture stated that anyone working in the field of culture, "independently of whether he is a member of this organization, comes under the jurisdiction of one or other of the specialized chambers."¹⁰⁵

Artists, even at this early stage, were expected to follow "the Principles of the Führer."¹⁰⁶ There were three levels of action which could be taken against an artist whose work was not felt to be in the correct spirit. The first was the *Lehrverbot* - withholding of the license to teach; the second was the *Ausstellungsverbot* - withholding of permission to exhibit; and third, was the *Malverbot* - the withholding of permission to paint.¹⁰⁷

The majority of modern architects left Germany due to the changing political situation. Walter Gropius settled in England in 1934, and three years later went to America. Erich Mendelsohn was forced to leave Germany in 1933. Bruno Taut and Ernst May emigrated to Russia as planning experts. Peter Behrens settled in Austria. Mies van der Rohe stayed longest in Germany he went to America only in 1938.¹⁰⁸

Although the repression and restrictions on artists started from the very first days of power of the National Socialists, it should be noted that from the very beginning, there was no unanimous and clear position what architecture should be developed in Nazi Germany. Even official opinion did not coincide.¹⁰⁹ There were several cases when the

¹⁰⁴ Plumb, Steve - Neue Sachlichkeit 1918-33: Unity and Diversity of an Art Movement, 2006, p. 140.

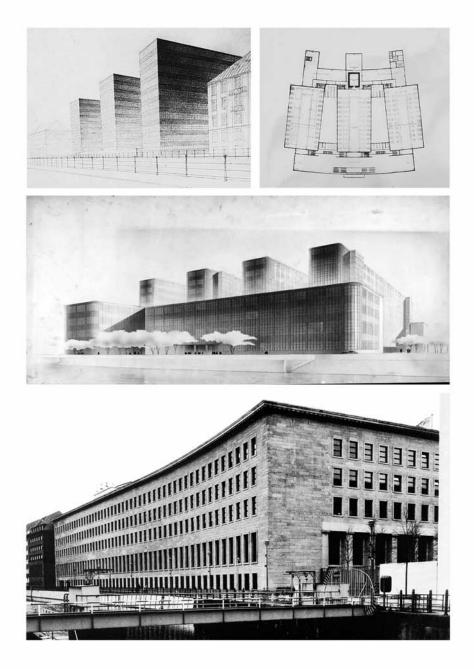
¹⁰⁵ **Golomstock, Igor** - Totalitarian art: in the Soviet Union, the Third Reich, Fascist Italy, and the People's Republic of China, 2011, p. 94.

¹⁰⁶ *Ibid*, p. 82.

¹⁰⁷ Plumb, Steve - Neue Sachlichkeit 1918-33: Unity and Diversity of an Art Movement, 2006, p. 140.

¹⁰⁸ Benevolo, Leonardo - History of modern architecture, volume II, 1992, p. 552.

¹⁰⁹ Joseph Goebbels and other less extreme National Socialists saw possibility to include *some* modern art and architecture within official *Kulturpolitik* (cultural policy), particularly the work of German Expressionists, while leading nazi ideologist Alfred Rosenberg and architect Paul Schultze-Naumburg did not.



53, 54. Ludwig Mies van der Rohe: Reichsbank Competition entry, Berlin, 1933.
55. Walter Gropius: Reichsbank Competition entry, Berlin, 1933.
56. Heinrich Wolf: Reichsbank, Berlin, 1933/1940.

criticism coincided: the Nazi architecture cannot be "Oriental, Jewish and Bolshevik"¹¹⁰ like *Neue Sachlichkeit* architecture in the Weimar Republic. The second argument was that "the Reich needed to assert the hierarchy of building types as visual evidence of the hierarchy of power",¹¹¹ so the buildings were expected to have monumental expression.

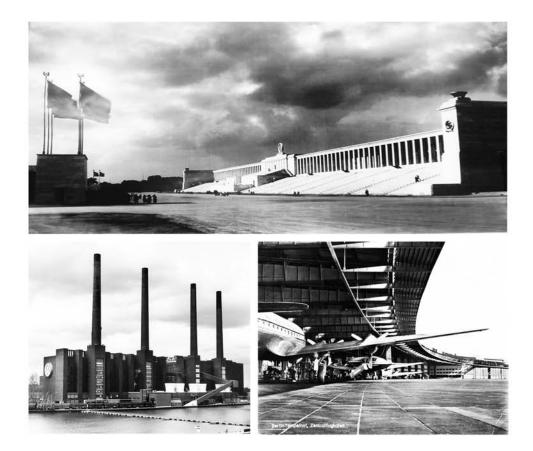
One of the projects that stands very clearly between the first period of Modernism and the swing back to conservatism was the Reichsbank competition in Berlin in 1933, the year when National Socialist came to power. It was not only traditional architects who took part, there were also important representatives of Modernism such as Walter Gropius, Ludwig Mies van der Rohe, Heinrich Tessenow and Hans Poelzig. [Figs. 53-55] Mies van der Rohe was one of the six to win a prize.¹¹² His project was a reinterpretation of neoclassical tradition not through the traditional style and classical orders, but through the monumentality, massive geometric forms and symmetry. Hitler not entirely satisfied with the proposals cancelled the Reichsbank competition in 1933. The building that was finally erected, during 1933-40s, designed at Hitler's wish by architect Heinrich Wolff. [Fig. 56] Regardless of the fact that no one of awarded designs was realized, all proposals even from the most avant-garde minded architects showed the returning aspiration for traditional aesthetics and monumentality.

The competition entries only confirm that in the beginning Hitler himself had not quite yet made up his mind about modern architecture. In the early 1930s, he was strongly influenced by propaganda minister Joseph Goebbels, who had recognized the advantages of *industrial modernism*. In September 1933, Hitler made a speech at a culture

¹¹⁰ Curtis, William J.R. - Modern architecture since 1900, 1987, p. 212.

¹¹¹ *Ibid*, p. 212.

¹¹² Benevolo, Leonardo - History of modern architecture, volume II, 1992, p. 552.



57. Albert Speer: Zeppelin Field, Nuremberg, 1935/1936.
 58. Ernst Sagebiel: Central Airport Building, Tempelhof-Berlin, 1934.
 59. Volkswagen factory, Wolfdburg, 1938.

conference, fiercely criticizing radical art but accepting "a functionalism of crystalline clarity" in design.¹¹³

The same year, Hitler commissioned a young architect Albert Speer to design the Nuremberg rally complex. The drawings were presented to Hitler in 1934, and Führer impressed with Speer's fully monumental proposal appointed him as a chief-architect of the Third Reich. [Fig. 57] From that on, the period of architectural explorations ended and Hitler made up his mind: "the Third Reich's landscape was not to be the sleek, industrial modernism of the Barcelona Pavilion, but Hansel and Gretel gothic, and a bombastic classicism of inflated porticoes, pediments and columns."¹¹⁴

From 1934, the Nazi regime had very precise requirements for the expression. There was a hierarchy of building tasks, from the prestige building down to the factory, with permitting or limiting a stylistic choice. National Socialists were not entirely opposed to some aspects of modernism, especially when it was related to modern technology. The Central Airport Building designed by Ernst Sagebiel in 1934 at Tempelhof-Berlin or Volkswagen factory in Wolfsburg built in 1938 shows the possibility of buildings to be monumental, but at the same time astonishingly modern. [Figs. 58, 59]

In contrast to this, there were two areas with very precise requirements; residential architecture had to be designed according to *völkish* style, which expected to focus on local specificity and follow a vernacular or neo-Medieval style, with pointed roofs and wooden verandas. For Government buildings, memorials and places dedicated to the Nazi cult were expected to use more universal Greco-German neoclassicism, with Doric columns, marble, allegoric statues, eagles and swastikas.¹¹⁵

¹¹⁴ *Ibid*.

¹¹³ Dyckhoff, Tom - Mies and the Nazis, 2002, online source.

¹¹⁵ Benevolo, Leonardo - History of modern architecture, volume II, 1992, p. 553.



60. Albert Speer: New Chancellery, Berlin, 1936/1939.

In 1936, Albert Speer published the *Die Ruinenwerttheory* (Theory of Ruin Value) where he suggested to avoid using modern materials such as steel girders and reinforced concrete in the construction of monumental party buildings, because such materials would not produce an aesthetically acceptable ruins. This idea was supported by Hitler who actually saw architecture as "word in stone" which would endure and continue to "speak" over time. He planned for such ruins to be a reflection of the greatness of the Third Reich, just as ancient Greek and Roman ruins reflected their great civilizations.¹¹⁶ [Fig. 60]

Hitler was personally interested in Roman and Ancient Greek history, especially the times of Roman Emperor Augustus. He associated Roman architecture with power, discipline, social and political hierarchy. For him Roman art and architecture was primarily political and corresponded to his own architectural vision.¹¹⁷

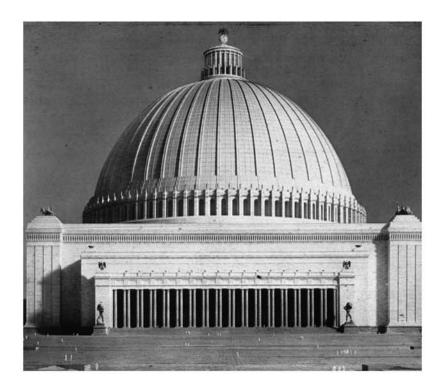
Franco Borsi distinguishes four phases of the Nazi architecture: 1933-36 entrenchment of power and the creation of bureaucracy; 1936-40 the fanatically megalomaniac period of party buildings to celebrate their image and plans for Berlin, Nurenberg and Munich, the key cities of the Third Reich;¹¹⁸ 1940-45, after the 1940 invasion to Paris, Hitler adopted larger-scale ideas of architecture.¹¹⁹ Its spaciousness inspired him with the spirit of grandeur and durability, a challenge to both space and time.¹²⁰

 ¹¹⁶ Scobie, Alexander - Hitler's state architecture: the impact of classical antiquity, 1990, pp. 93-94.
 ¹¹⁷ Ibid, p. 39.

¹¹⁸ The most notorious buildings of the second period were Werner March - *Olympic Stadium* in Berlin (1936), Paul Ludwig Troost - *House of German Art* in Munich (1933-37), Albert Speer - *Zeppelin Field* and *Cathedral of Light* in Nurenberg (1936).

¹¹⁹ The last period of Nazi activity an effort to challenge both, space and time most visible in the works for the city of Berlin, the capital of the Third Reich. Albert Speer - *New Chancellery* (1936-39), Adolf Hitller and Albert Speer - *Great Hall* (never realized), *Arch of Triumph* (never realized) and *Plan for Berlin* (1937-40).

¹²⁰ Borsi, Franco - The monumental era: European architecture and design 1929-1939, 1987, pp. 28-29.



61. Albert Speer, Adolf Hitler: Great Hall, Berlin.

The culmination of National Socialist architectural ambition would doubtless have been the transformation of Berlin into the new capital of *Germania*. The Great Hall was to be the most powerful and permanent construction in the history of architecture. [Fig. 61] It was no longer monumentalism, it was ever-increasing trend toward representationalism of the world's most powerful country, the Third Reich. But the gigantic plans that Hitler and Speer had made, which would have been a testament of a new and everlasting order, were overtaken by the fall of Germany and got no further than the first stage. The rest was taken care by the war, which destroyed Berlin almost completely.

The city as political stage

Totalitarian regimes that established themselves in Europe between the two world wars had a pronounced hierarchical system in their political model, and at the same time claimed to be superior to other nations. Therefore, it is not surprising that Mussolini, Hitler and Stalin were looking to express their superiority in buildings and urban planning not only at home but also in the international arena.

As observed by Miles Glendinning in his book *The Conservation Movement: A History of Architectural Preservation Antiquity to Modernity* (2013) "countries controlled by totalitarian regimes, left or right, saw new and old architecture in a far more overtly political, instrumental light that did those that retained parliamentary democratic systems. [...] As far as the relationship between the new and the old in architecture was concerned, the most fundamental differences were over the importance that a regime, or system, placed on historic architecture as opposed to new construction."¹²¹

¹²¹ **Glendinning, Miles** - The Conservation Movement: A History of Architectural Preservation Antiquity to Modernity, 2013, p. 202.

The urban renewal of Moscow: 1935

Stalin took personal interest in urban planning affairs. His aim was to make a Moscow a respectable capital of the world's first Socialist country. In 1934, on the assembly of the Centrall Committe Stalin proclaimed: "we accept neither the view of those who reject the very principle of 'the city' and who urge us to convert Moscow into a huge village, nor of those extreme urbanists who wish to create a city on the capitalist model, with its excessive density of population. History shows us... that the most efficient organization of industrial areas is based on the rational distribution of drainage, plumbing, lighting, and so on... It is therefore incorrect to propose a city straggling for seventy or a hundred kilometres, thereby turning it into a village and depriving it of all the advantages of communal services and urban life. We should build apartment blocks of at least six or seven storeys, and some public buildings should rise to fifteen or even twenty storeys."¹²²

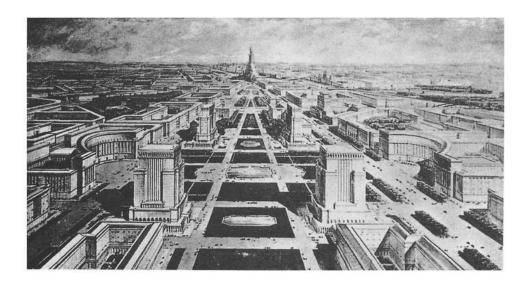
Stalin was regarding to early open competitions of the 20's and 30's for the new General Plan for Moscow, with entries from such distinguished functionalists as Le Corbusier, Hannes Meyer, Ernst Mai and Nikolai Ladovsky and the proposals of the 'disurbanists', led by Mikhail Okhitovich, member of the OSA Group. When work finally began on the definitive plan, no competition was held, as in genuine communist country, there were no figure of the chief architect "many architects helped to develop the Leader's concept."¹²³

In June 1935, the resolution of the Centrall Committee, "Concerning the general plan for the reconstructions of the city of Moscow" was approved in its final form and was signed by Stalin and Molotov.¹²⁴ It proposed demolishing a large area in Moscow's historical pattern aiming to create a space for 20 kilomeeters long compositional axis from the Red

¹²² Tarkhanov, Alexei; Kavtaradze, Sergei - Stalinist architecture, 1992, p. 84.

¹²³ Ibid, p. 86.

¹²⁴ Kopp, Anatole - Town and revolution: Soviet architecture and city planning 1917-1935, 1970, p. 214.



62. Plan for Moscow's new centre, 1935.

Square to the Lenin Hills, accompanied by eight large-scale public and administrative buildings.¹²⁵ [Fig. 62] All this neo-baroque composition had to be closed by Palace of Soviets, the largest building in the world, which was proudly compared to be taller than capitalism's recent best effort, the Empire State Building. In its final version of design, in 1937, the Palace of Soviets consisted of two immense halls capable of giving a seat to 20 000 and 8 000 spectators, party offices and restaurants. All this program were contained in a massive stepped pedestal surrounded by a 75 meter-high statue of Lenin.¹²⁶

This plan, which people rightly called the Stalin plan, suggested to improve the traffic system, with a network of high-ways, public spaces, broad avenues for parades; building of the new underground metro for the city and constructing the 120 kilometre long Moscow-Volga river canal, which was constructed by forced labour and completed in 1937. The great attention was shown to green spaces such as gardens, parks, tree-lined avenues, pounds, and fountains, – the idea taken from an english garden cities that gained popularity in Russia still in pre-revolutionary days.¹²⁷

As Soviet Union entered the Second World War, work on the General Plan was suspended. Construction on a few projects, such as underground metro stations, continued, but all the other major urban reconstruction was abandoned. The Palace of the Soviets, was never finished, the steel structure of its foundation was dismantled during the 1940s for use in fortifications and bridges. Eventually, in 1960, the foundations were used for a massive municipal swimming pool, while during the period of 1995-2000 the destroyed Cathedral of Crist the Saviour was rebuilt on the site.

¹²⁵ Kostof, Spiro - A history of architecture: settings and rituals, 1995, p. 718.

¹²⁶ Vale, Lawrence J. - Architecture, power, and national identity, 1992, p. 36.

¹²⁷ Tarkhanov, Alexei; Kavtaradze, Sergei - Stalinist architecture, 1992, pp. 90-92.

The urban renewal of Rome: 1931

When Mussolini came to power he saw Rome as politically hostile "destructive of family values and a corrupting influence on a wholesome, fertile race."¹²⁸ However, the city with all its history and tradition was necessary in order to demonstrate his own power and even superseed its past glories. Mussolini envisioned the new buildings being monumental and grandeur, that "would prove the comparative worth of the present against the stony testimonials of past glories, native and foreign."¹²⁹ This political-ideological manipulation of the existing built legacy is most visible in Italian case.

In December 1925, Mussolini proposed a five year plan to make Rome a new capital of the Third Rome.¹³⁰ Mussolini sought not only to adapt the city to the demands of modern traffic circulation, but also to create the greatest and the most permanent reality of the modern metropolis that would stand up against the imperial triumphs of the past and would continue to impose in infinitive future.

The master plan for the Fascist Rome was approved in its final form and sanctioned by a royal decree on 6th July 1931. The commission responsible for the master plan which consisted of Armando Brasini, Marcello Piacentini, Gustavo Giovannoni, and other architects, was led by the strict directives of Mussolini. Although most of proposed urban surgeries were realized, the final design was considerably different from the plan of 1931.¹³¹

Following the successful Haussmann's street widening techniques, Mussolini's urban planners proposed to open the principal connections, the straight-line avenues, linking

¹²⁸ Kostof, Spiro - A history of architecture: settings and rituals, 1995, p. 717.

¹²⁹ Ibid, p. 717.

¹³⁰ **Glendinning, Miles** - The Conservation Movement: A History of Architectural Preservation Antiquity to Modernity, 2013, p. 206.

¹³¹ Kostof, Spiro - The third Rome 1870-1950: traffic and glory, 1973, p. 50.



63. Aerial view of Piazza Venezia, Via dell'Impero, Via del Mare, Rome.

the key monuments. Unlike Haussmann's tightly constrained clearances of corridor-like urban spaces, Mussolini's vision to connect the Piazza Venezia with the Colloseum required more sweeping demolitions of historical urban fabric.

Mussolini himself was indifferent to "antiquarian history": "history was only of interest if it could be politicised and instrumentalised," he also decreed that, "where the conflict arose, the medieval fabric must be sacrificed." ¹³² In general, the more recent the structure in question was, the less likely it was to be respected. Many buildings of the late seventeenth and eighteenth centuries disappeared without much fuss in the first decades of the Third Reich.

In 1931 excavations started for the new 900 meters long and 30 meters wide boulevard, the Via dell'Impero, linking the Colosseum to the Palazzo Venezia used by Mussolini as his own headquarters. The new straight line linking these two monuments, not only required a demolition of 5 500 units of housing of the medieval urban pattern, but also the big part of the ruins of the imperial fora was burried under the roadway.¹³³ [Fig. 63]

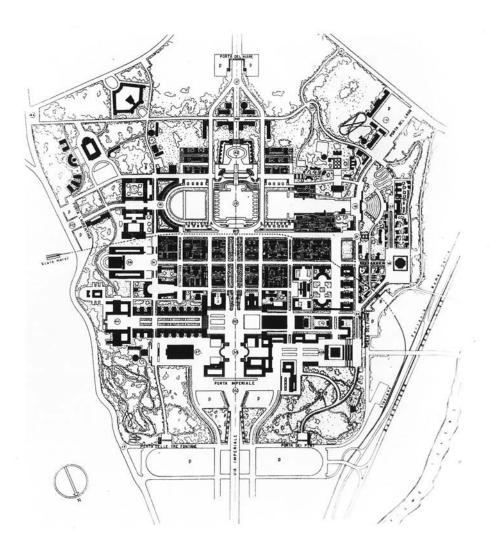
It was officially agreed that the historically significant architecture of Rome extended from antiquity to the end of the seventeenth century.¹³⁴ In this context, Mussolini decided to "liberate" all of ancient Rome key monuments from the mediocre construction – the Theatre of Marcellus, the Capitoline, the Pantheon – by clearing vast spaces around them.¹³⁵ The mausoleumm of Augustus (Piazzale Augusto Imperatore) was freed from parasitic construction and the "liberated" monument was flanked on two sides by

¹³² **Glendinning, Miles** - *The Conservation Movement: A History of Architectural Preservation Antiquity to Modernity*, 2013, p. 206.

¹³³ Vale, Lawrence J. - Architecture, power, and national identity, 1992, p. 30.

¹³⁴ **Kostof, Spiro** - *The third Rome 1870-1950: traffic and glory*, 1973, p. 21.

¹³⁵ **Glendinning, Miles** - *The Conservation Movement: A History of Architectural Preservation Antiquity to Modernity*, 2013, p. 206.



64. Final plan of Esposizione Universale Roma, 1938.

porticoed buildings of the National Fascist Institute of Social Insurance,¹³⁶ allowing to draw the compatison of two powers: the ancient Rome and the new Fascist Rome.

Inspired by Le Corbusier's utopian schemes and the "Athens Charter", some younger architects, led by Marcello Piacentini, proposed conserving the historic centre and building a completely new administrative centre away from historical core.¹³⁷ The event was to be held in the site known as the *Esposizione Universale di Roma* (EUR). The universal exposition to be hosted in 1942 which coincide with the twentieth anniversary of the Fascist rule.¹³⁸ Mussolini envisioned here a grand scenario, a monumental stage from which he could praise his fascist regime's accomplishments. At the close of the universal exhibition the site would be transformed into new monumental core of Rome.

The preliminary master plan for EUR was drawn up in early 1937 by a team consisting of Giuseppe Pagano, Marcello Piacentini, Ettore Rossi, and Luigi Vietti. The master plan, which was aproved by Mussolini on 8th April 1937, was based on formal cross-axial scheme. The north-south axis of EUR coincide with the highway that was to link Piazza Venezia with EUR and head on to Ostia and the sea.¹³⁹ [Fig. 64]

"E42 (later EUR) was a project that inflated *romanità* to a heroic level. By the late 1930s and early '40s, Mussolini had successfully reshaped the public perception of Acient Rome in keeping with the values of Fascist modernity and the grandeur of the new Italian Empire."¹⁴⁰

¹³⁶ **Kostof, Spiro** - *The third Rome 1870-1950: traffic and glory*, 1973, p. 68.

¹³⁷ **Glendinning, Miles** - The Conservation Movement: A History of Architectural Preservation Antiquity to Modernity, 2013, p. 208.

¹³⁸ **Kostof, Spiro** - *The third Rome 1870-1950: traffic and glory*, 1973, p. 74.

¹³⁹ *Ibid*, p. 74.

¹⁴⁰ **Glendinning, Miles** - The Conservation Movement: A History of Architectural Preservation Antiquity to Modernity, 2013, p. 208.

Though the exposition was never held because of the Second World War, some of the buildings were more or less completed between 1937 and 1943. The site did, however, experience considerable growth after the Second World War. "With its wide, tree-lined avenues and substantial buildings housing government ministries, a congress hall, numerous museums, and corporations, EUR is yet another symbolic node of political power in the Italian capital."¹⁴¹

The urban renewal of Berlin: 1937

In 1937 Hitler named Albert Speer to the post of *General Bau Inspektor* (Inspector General of Buildings) and made him responsible for the urban reconstruction of Berlin, which was to be transformed into a new representative capital of the Third Reich "Germania".¹⁴² Speer had planned a new center for Berlin along with a monumental, memorial-like North-South Axis that would run from a gigantic neoclassical Railway Station, under the monumental Arch of Triumph and on to the focal point which was to be the Great Hall.¹⁴³ [Fig. 65] The Great Hall intended to be the biggest building in the world, much larger than St. Peter's in Rome and would be capable of accommodating a standing audience of 150 000 to 180 000 people inside. This technically innovative cupola was designed for Nazi rituals, as Speer described, "essentially a place of worship".¹⁴⁴

Part of the plan included a demolition of established historic areas of 19th century.¹⁴⁵ Albert Speer had "solved" this problem by confiscating the property of Jewish citizens

¹⁴¹ Vale, Lawrence J. - Architecture, power, and national identity, 1992, p. 32.

¹⁴² Hake, Sabine - Topographies of Class: Modern Architecture and Mass Society in Weimar Berlin, 2008, p. 213.

¹⁴³ **Tinniswood, Adrian** - *Visions of power: ambition and architecture from ancient Rome to modern Paris*, 1998, p. 152.

¹⁴⁴ Vale, Lawrence J. - Architecture, power, and national identity, 1992, p. 23.

¹⁴⁵ Hake, Sabine - Topographies of Class: Modern Architecture and Mass Society in Weimar Berlin, 2008, p. 213.



65. Plan for Berlin's new centre, 1937.

who were deported to concentration and death-camps and resigning it to the evicted German people.

Actually, the urban renewal of Berlin had its roots in Weimar Republic. The "Plan for Greater Berlin" by Martin Mächler (1917) was the first modern plan for the city of Berlin where he identified five urban functions for the historic center: commerce, housing, administration, culture, and entertainment.¹⁴⁶ Mächler saw the "city center as a site of concentrated energy and power. The physical expression of this power was a new axis, to be driven through the city from the Spreebogen in the north, past the existing Reichstag, and southward through the Tiergarten and the marshaling yards of the Potsdamer Station."¹⁴⁷

In 1933, the municipal city planners had proposed another master plan for the Berlin under the title "Nordsüd Asche" (North-South Axis). Hitler, not entirely satisfied with the proposal, commissioned Speer to design a new plan, which would attempt not only to outdo the urban axes of power of earlier German rulers, but to outscale every effort at architecture and urban design that the world had ever known. Speer incorporated many aspects of both plans into his design, including wide avenues, a series of circular and square plazas, but his program differed from the earlier proposal in one fundamental way, the "North-South Axis would not become a traffic artery, but a great ritual passage through the city."¹⁴⁸

Studies reveal that Hitler thought about the reshaping Berlin in the early twenties. It was then he started to study various plans for Berlin, found them inadequate, and was

¹⁴⁶ *Ibid*, p. 213.

¹⁴⁷ Whyte, Iain Boyd; Frisby, David - Metropolis Berlin 1880-1940, 2012, p. 315.

¹⁴⁸ Balfour, Alan - Berlin: the politics of order 1737-1989, 1990, p. 83.

impelled to develop his own ideas.¹⁴⁹ In 1924, when he was still imprisoned in Landsberg Fortress, Hitler made two drawings – one of a domed hall, the other of a triumphal arch. Years later Hitler shared these two drawings with Albert Speer and commissioned him to prepare plans for the construction of a new Berlin, new world's capital Germania. Speer's master plan defined not only the urban shape, but the overall style for the architecture, and many architects were invited to design the individual pieces. By 1939, a great model for the project had been built. The Great Hall was to be the most powerful and permanent construction in the history of architecture as was to be the Berlin, the capital of the world. "Hitler's desire was for a reality of absolute symmetry, the reassertion of absolute and conservative power in opposition to all the random liberal and liberating tendencies which had undermined Western culture,"¹⁵⁰ fortunately, little of the plan was ever realized, and only a small part of the east-west axis has survived, everything rest was taken care by the war, which destroyed the Berlin almost completely.

¹⁴⁹ *Ibid*, p. 83.

¹⁵⁰ Balfour, Alan - Berlin: the politics of order 1737-1989, 1990, p. 98.

3| lithuania. The university of kaunas

Historical and political context of Lithuania

On 17 December 1926, coup *d'état* completed short, nine-year democratic development period in Lithuania and installed a conservative authoritarian government led by Antanas Smetona. After the First World War, the newly independent state of Lithuania was followed by political and economic instability. President Antanas Smetona believed that only anti-democratic form of government can financially stabilize the region, so the constitutions, which gave the President Smetona almost absolute power, were adopted in 1928 and in 1938.¹⁵¹ Relatively rational Smetona's regime, also referred to as "velvet dictatorship", maintained power until the Soviet occupation in 1940.

With the change of the constitution, the activities of all opposition parties were banned, and the Lithuanian National Union became the only legal party. Smetona's regime was anti-communist, authoritarian and nationalistic with the "tinge of fascism": the figure of the leader of the nation, one-party system, rudiments of the corporate regime, absence of parliament, strict media censorship. The regime was mainly based on three forces: the military, political police and the Lithuanian National Union.

The military was the basis of Smetona's government, the main physical and moral support and protection. Therefore, during the years of dictatorship, more budget funds were spent on the military than culture, education, science and health protection.¹⁵²

Smetona's government, while limiting political freedoms of the citizens, carried out a relatively liberal cultural policy. The authoritarian regime neither used literature nor art for its own purposes and this way it was very different from totalitarian regimes, which used these cultural areas for propaganda. The Ministry of propaganda was not established

¹⁵¹ Gumuliauskas, Arūnas – Lietuvos istorija: 1795-2009, 2010, pp. 123-125.

¹⁵² Eidintas, Alfonsas - Antanas Smetona ir jo aplinka, 2012, p. 511.

in Lithuania. Writers, artists, architects, scientists and cultural figures could not complain about the lack of creative freedom, they were not required to serve neither the party nor the leader.

Fostering of national culture was perceived as political consolidation of the independent state, as continuation of the fight for independence. Much attention was paid to naturally ethnical things: folk costumes, songs, folk dances, and folk art in general. Although there was no institution of cultural management and administration during the period of the authoritarian regime, it was discussed in congresses and meetings how to determine the character of the Lithuanian culture and its guidelines. However, Smetona himself did not like such fierce ambitions, as they seemed too drastic.¹⁵³

1940-1941 was a particularly politicised period in Lithuania. Lithuania, like other Baltic States, has proved a dramatic affirmation of the old adage that "geography is destiny". On 14 June 1940, the Soviet Union handed an ultimatum to the independent Republic of Lithuania, and the next day its armed forces were introduced into the country to maintain peace and safety in the region and save Lithuania from Smetona's "fascist" regime.¹⁵⁴ A puppet government was immediately formed in the country, and elections to the socalled *Liaudies Seimas* (People's Parliament) were announced.¹⁵⁵ On July 21, 1940 the People's Parliament proclaimed Lithuania a Soviet republic, and sent an official delegation to Moscow requesting that it be accepted into the Soviet Union.¹⁵⁶ On August 3, 1940 Lithuania was officially incorporated into the Soviet Union, and on August 25, 1940 Soviet law came into force - Stalin's constitution was adopted, the new political

¹⁵³ *Ibid*, pp. 289-290.

¹⁵⁴ Gumuliauskas, Arūnas – *Lietuvos istorija: 1795-2009*, 2010, pp. 284-285.

¹⁵⁵ *Ibid*, pp. 289-291.

¹⁵⁶ *Ibid*, pp. 291-293.

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system was intensely enforced in all fields of life.¹⁵⁷ Less than a year later, on June 22, 1941 the German army marched into Lithuania.¹⁵⁸ With the approach of the Germans, the Lithuanians rebelled against the Soviets, and restored independent state of Lithuania was announced on June 23, 1941, but by August 5, 1941 the provisional government was disbanded and a new occupational regime was established.¹⁵⁹ The territory of Lithuania together with other Baltic States, the north eastern part of Poland and the west part of Belarusia was named "Ostaland" and became the province part of the Third Reich.¹⁶⁰ German occupation lasted until the military-political operation of the Soviet Union "to liberate the Soviet Baltic people", which was followed by re-occupation of the Baltic States.¹⁶¹ Together with the come back of Soviet regime all political and cultural system was completely sovietised again, starting from the abolition of private property and indoctrination of centralised management. Lithuania finally regained independece in 1991.

¹⁵⁷ *Ibid*, pp. 293-294.
¹⁵⁸ *Ibid*, p. 309.
¹⁵⁹ *Ibid*, pp. 311-312.
¹⁶⁰ *Ibid*, p. 313.
¹⁶¹ *Ibid*, pp. 326-327.

Architectural context of Lithuania: 1920-1940

In 1919, after Poland occupied Vilnius region, Kaunas became the temporary capital of independent Lithuania. Separation of Vilnius from the territory of Lithuania meant that the country lost its European capital with historical, architectural and cultural monuments and that a new capital must be created within a very short period. After becoming the temporary capital, Kaunas city absorbed the majority of construction funds and expanded significantly during the interwar period. Therefore, all architectural achievements and problems of interwar Lithuania are reflected in the city's architecture.

The first task for architects of new Lithuania was to create the image of the state by forming a minimum of representative buildings: ministries, embassies, banks, hotels, museums and other public objects that are essential to the centre of any state. Competitions were announced for the most important projects, and the projects were assessed both architecturally and economically. Over the twenty years, about 20 competitions were announced, 6 of which were international. The state began to promote good architecture and construction by premiums from 1935.¹⁶²

During the first state-building period, until 1930, *academic neo-classicism* was considered to be the only right decision when building representative buildings of the state.¹⁶³ This choice of formal style was determined by several factors.

First of all, a huge shortage of qualified architects was felt in post-war Lithuania.¹⁶⁴ In the first decade of the interwar period, only a dozen of more famous architects, who mainly

¹⁶² Kančienė, Jolita; Adomavičienė, Nijolė; Andriušis, Aurimas - Kultūra. Iliustruota Lietuvos enciklopedija, 2006, pp. 75-76.

¹⁶³ Jankevičienė, Algė; Levandauskas, Vytautas; Miškinis, Algimantas - Kauno architektūra, 1991, p. 46.

¹⁶⁴ In 1922, the University of Lithuania was established in Kaunas, the temporary capital of Lithuania during the interwar period. It consisted of six faculties of which one was dedicated to Technical Studies. It was the first



66. Vladimiras Dubeneckis: School of art, Kaunas, 1922/1923.
67. Mykolas Songaila: Bank of Lithuania, Kaunas, 1924/1928.
68. Edmundas Frykas: Ministry of Justice, Kaunas, 1925/1929.
69. Mykolas Songaila: Department of Physics and Chemistry, Kaunas, 1931.

gained their education in higher education institutions of the Russian Empire, formed the public taste and shaped the face of the city. The three most famous architects of that time relied on these *Beaux-Arts* traditions taught in Saint Petersburg schools: Mykolas Songaila (1874-1941), Edmundas Frykas (1876-1944) and Vladimiras Dubeneckis (1888-1932).¹⁶⁵ Although representatives of *academic neo-classicism* rejected the decor details and chose more abstract shapes, it tells more about the architectural stagnation, rather than the innovative direction.¹⁶⁶ [Figs. 66-69]

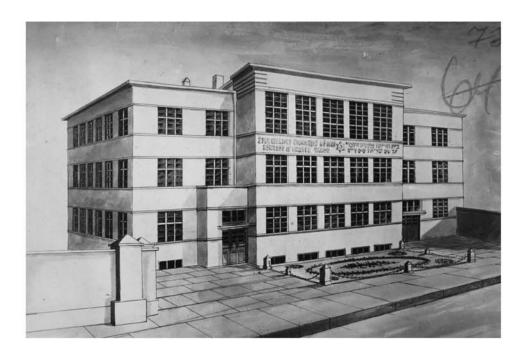
Similarly to the case of Russia, Lithuania's technical and financial capabilities were limited. In addition, there was a lack of qualified engineers and construction workers, who would manage to implement complex design solutions. Technical innovations also appeared late in Lithuania. Local companies manufactured bricks, glass, tiles, which were widely used in construction. After 1930, reinforced concrete became popular. It was used for slabs of larger public and residential buildings. Although skeleton construction was more widely used in the industrial buildings, in the second half of 1930, they appear in public buildings as well. Top sunroofs, glazed ceiling were made from metal; textured plaster was mainly used for facade decoration; the first floor was sometimes decorated with natural polished stone.¹⁶⁷ In addition, the society was still conservative and they associated beautiful things with historic styles and décor.

Architectural control system in interwar Lithuania was quite democratic. The Lithuanian Restoration Commissariat (established in 1922; the Technical Inspectorate from 1923)

higher education institution that prepared architects-engineers in Lithuania after the Vilnius University was closed down by the Tsar Nicholas I decree in 1832.

¹⁶⁵ Mykolas Songaila – St. Petersburg Academy of Fine Arts (1894-1903), Edmundas Frykas - St. Petersburg Institute of Civil Engineers (1902) and Vladimiras Dubeneckis - St. Petersburg Academy of Fine Arts (1906-1914).

 ¹⁶⁶ Jankevičienė, Algė; Levandauskas, Vytautas; Miškinis, Algimantas - Kauno architektūra, 1991, p. 46.
 ¹⁶⁷ Ibid, pp. 45-46.



70. Antanas Jokimas: Hebrew Real ("Reali") Gymnasium, Kaunas, 1930/1931.

and the Construction Department of the City Municipality (established in 1921) took care of the construction coordination.¹⁶⁸

Despite the fact that in the second half of 1920 *academic neo-classicism* was considered to be the country's "official style", it should be emphasized that the President Smetona did not limit the creative freedom of the architects and the choice of such style is more associated with the taste and education of the then architects. Meanwhile, Prime Minister Juozas Tūbelis tried to "modernize" the region by supporting the construction of schools, universities, hospitals, bridges and roads even without bright architectural vision. He carefully distributed the funds being well aware of the financial condition of Lithuania. Therefore, in this area, architecture focused on rationalism, the aesthetic of which is based on expediency, efficiency and simplicity. [Fig. 70]

In congresses and meetings of Lithuania of the third decade, the politicians actively discussed how to determine the character of the Lithuanian culture and its guidelines. The need of Lithuania's own style in arts was associated with political realities: to get rid of the foreign country's domination, restore its independence. However, as noted by architecturologist Vaidas Petrulis, "the Lithuanian style is sought not by critically looking at the historicism manifestations at the beginning of the third decade of the 20th century, but it is just an attempt to get away from the Russian heritage as much as possible."¹⁶⁹

Vladimiras Dubeneckis was the first to raise the question of "national style" in architecture. In his opinion, baroque was most suitable to express peculiarities of local architecture. Baroque was the most popular architectural style in Lithuania, which was associated with the period of free and powerful Lithuania, Grand Duchy of Lithuania, and the lost capital Vilnius. However, *art deco* was much more often used in the national

¹⁶⁸ *Ibid*, p. 45.

¹⁶⁹ Petrulis, Vaidas - Iracionalistiniai XX s. pradžios sprendiniai: istorizmas ir tautinis stilius, 2012, p. 4.



Mykolas Songaila and Vladimiras Dubeneckis: State theatre, reconstruction, Kaunas, 1922/1925.
 Mykolas Songaila and Vladimiras Dubeneckis: "Ragutis" dwelling house, Kaunas, 1922/1923.
 Feliksas Vizbaras: Central post office, Kaunas, 1930/1931.

decor motifs to reflect "Lithuanianness": tulips, lilies, daisies taken from folk art, folk ornaments moved to the brick building.¹⁷⁰ "National style" was important to the newly established state as the identity development tool, but it only manifested in individual examples and probably remained only a theoretical project, rather than a real and significant trend of architectural style. [Figs. 71-73]

Radical changes started in the late twenties. They are not only associated with the general growth of construction scale in Lithuania, but also new generation architects joining the formation of Kaunas. They were mainly local architects¹⁷¹, who graduated from foreign higher education institutions and returned to their homeland after mastering the then creative architectural principles. Skilfully using them under local conditions, they began to form modern architectural style based on specific rationalism and functionalism.¹⁷² First architects, who gained their education in Lithuania, contributed to this upturn as well. Kaunas University of Technology established in 1922 prepared 180 architects-engineers during the years of its existence.¹⁷³

In the first experiments, the new generation of architects tried to get rid of historical "quotations", but they did not manage to move away from the traditional principles of composition: symmetrical plans and facades. Volumes of the buildings were static, massive, with equally spaced windows, verticality is often highlighted. One of the expressions of the representativeness: monumental scale, intensive rhythm of edges,

¹⁷⁰ Jankevičienė, Algė; Levandauskas, Vytautas; Miškinis, Algimantas - Kauno architektūra, 1991, p. 46.

¹⁷¹ A.Funkas - Polytechnic Institute of Berlin 1924, V.Landsbergis-Žemkalnis - University of Rome 1923-1926, S.Kudokas - University of Rome 1924-1930, B.Elsbergas - University of Toulouse in France 1925, University of Brussels 1931, and others.

¹⁷² Miškinis, Algimantas - Kaunas Laisvės alėja, 2009, p. 35.

¹⁷³ Kančienė, Jolita; Adomavičienė, Nijolė; Andriušis, Aurimas - Kultūra. Iliustruota Lietuvos enciklopedija, 2006, p. 76.



74. Vladimiras Dubeneckis, Karolis Reisonas: Vytautas Magnus national museum of history, Kaunas, 1929/1936.
75. Vytautas Landsbergis-Žemkalnis: "Pienocentras" administration building, Kaunas, 1931/1934.
76. Karolis Reisonas: "Žemes" bank, Kaunas, 1933/1935.
77. Vytautas Landsbergis-Žemkalnis: Chamber of Commerce, Industry and Crafts, Kaunas, 1937.
78. Vytautas Landsbergis-Žemkalnis: Research Laboratory, Kaunas, 1933/1935.

illusion of dynamic volume. Luxurious details that are close to functionalism stand out: entrance roof, glass hall ceiling. [Figs. 74-77]

We could not find pure avant-garde modernism in the Lithuanian interwar architecture. Not only economic traditions were unfavourable for the emergence of avant-garde, but also those of cultural and artistic life. Vytautas Landsbergis-Žemkalnis (1893-1993) perhaps managed to get closest to modernism. His works are also full of compromises between the modern and traditional means of expression. He preferred centred plan, symmetry and some classical motifs in large objects. However, traditional elements did not overshadow modern aesthetic principles. Landsbergis' buildings are monumental and elegant, with laconic expression, subtle balance of planes and openings. They are characterized by correct relationship with nature and existing buildings. The Research Laboratory (1933-1936) is one of the most remarkable architectural achievements of the interwar period in Lithuania. This is a manifesto of the Lithuanian functionalism. Flat roof, continuous strip windows and free plan: this is a result of innovative use of reinforced concrete frame structures.¹⁷⁴ [Fig. 78]

The interwar period is significant in the Lithuanian architecture, as the basics of modern architecture were formed and new constructions and compositional principles were applied during this period. Architecture of 1918-1940 is not only very important for the formation of new aesthetics, but also in the historical-political sense. After 120 years of oppression of the Russian Empire, the newly re-established state of Lithuania managed to incorporate itself in Europe by artistic measures acceptable to it within a very short period: without copying pure international modernism, but following international innovations and adapting them to the situation in Lithuania, and thus forming a unique

¹⁷⁴ Baužienė, Morta; Lagunavičius, Alfonsas - Lietuvos moderno pastatai, 1998, p. 3.

and original Lithuanian modern architecture. Lithuanian modernism, unlike that in Western Europe, was relatively modest and conservative.

Kaunas is a new university city

The establishment of university in Kaunas is closely related to the political circumstances and the restoration of Lithuania state after the First World War.¹⁷⁵ Before the First World War, there were no higher education institutions in Lithuania, while Russian was taught in primary schools. Lithuania found itself in the situation of "cultural genocide". Therefore, after declaring independence of Lithuania on 16 February 1918, it was decided to re-establish Vilnius University. However, after Vilnius was occupied by Poland, the new Republic was left without both the capital and the university. Lithuanian intellectuals realized that the state cannot live without its intellectuals and professionals, so it was rushed to take care of the establishment of the higher education institutions in the temporary capital of Kaunas.

On 16 February 1922, Lithuanian University, the first higher education institutions in independent Lithuania, was opened in Kaunas. The eight more higher education institutions were established during the period of 1922-1939: Vytautas Magnus Higher Military School (1931), Agricultural Academy (1924), Kaunas Conservatory (1933), Higher Physical Education Courses (1934), Veterinary Academy (1936) and Kaunas School of Arts (1939). In order to strengthen political and cultural position in Klaipeda region, the Lithuanian Government established there two institutions: Klaipeda Trade

¹⁷⁵ In 1832, after the failed uprising against the Russian Empire, also known as *November Uprising*, Tsar Nicholas I closed down the Vilnius University (founded in 1579 by Jesuits). Not only the oldest and only university was closed, in addition, Lithuanian language was outlawed. The country lived without its own language and education system for almost 90 years, up until the end of WWI and the restoration of independence in 1918.



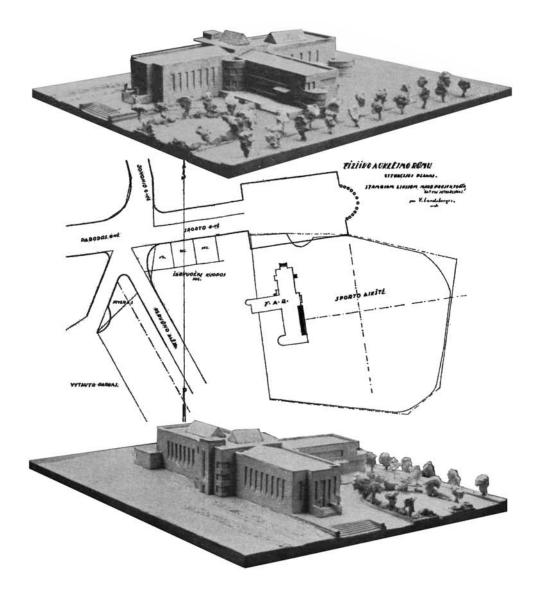
Vladimiras Dubeneckis: Kaunas School of Arts, Kaunas, 1922.
 Vytautas Landsbergis-Žemkalnis: Republican Pedagogical Institute, Klaipeda, 1937/1938.
 Saulius Kudokas: Hiher School of Technology, Kaunas, 1938.
 Feliksas Bielinskis: Kaunas Conservatory of Music, 1939.

Institute (1934) and Republican Pedagogical Institute (1935).¹⁷⁶ However, each of them required a number of facilities, so new buildings were designed and old ones used.

In the first post-war years, most universities did not have enough premises, laboratories, libraries suitable for studies and scientific work. There were no rich sponsors, who could support the construction of facilities for the universities. Due to the difficult post-war situation, the state allocated the majority of funds for the defense and promotion of economic growth. However, in the twenties, after a slight recovery of the economy and the acceleration of the construction, the construction of university buildings had become "a matter of national importance"¹⁷⁷ In less than 10 years the state built and expanded most of higher education institutions established during the interwar period. [Figs. 79-82]

¹⁷⁶ Anušauskas, Arvydas; Bubnys, Arūnas; Kuodytė, Dalia - Lietuva 1940-1990: okupuotos Lietuvos istorija, 2005, p. 26.

¹⁷⁷ Fiziško Auklėjimo Draugijos delegacija pas Ekscelenciją Respublikos Prezidentą A.Smetoną, 1931, p. 191.



84. Vytautas Landsbergis-Žemkalnis: master plan for the Chamber of Phtsical Culture, 1931.
 83,85. Plaster model of the Chamber presented to President Antanas Smetona on October 1931.

First case study: Chamber of Physical Culture¹⁷⁸

The idea to build the Chamber of Physical Culture was formed in 1926-1927 in the Sport League Central Committee, and in 1928, the negotiations with Kaunas City Council on the land site in the city centre with the wooden house on Kęstučio Street were opened. During the regime of Russian occupation, the land site was owned by sports organization Orel.¹⁷⁹ However, the negotiations were terminated and the idea to build the chamber was revived only in 1930 when the Sports League Centre Board presented a conceptual design to Minister of Education. It was planned to build the chamber on another site, next to *Ažuolynas*.¹⁸⁰ The project consisted of an exercise room, several rooms for the Sports League institutions and swimming pool.

As far as can be judged from the press of that time, the idea of the construction of the chamber was closely related to both hygiene ideas that were popular in the Modern Movement era and processed of raising national awareness. Thus, presenting the idea of the chamber, it was stressed that "by educating one's physical strength, we definitely influence spiritual changes of the human body. Physical education of the entire nation must be understood not only as strength training, but also as education of spiritual and patriotic feelings."¹⁸¹ On the other hand, by developing "healthy habits of the nation, teaching to improve its physical stamina and health", it was sought to contribute to young people's "cultured competition with other nations", what "we failed to do to this day."¹⁸² Therefore, "Chamber of Physical Culture will have to improve the country's sports area

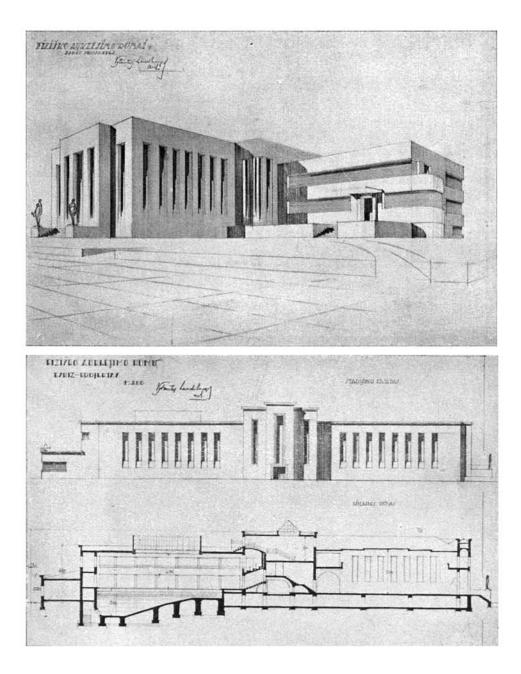
¹⁷⁸ At present the Central Building of the Lithuanian Sports University.

¹⁷⁹ *Ibid*, p. 188.

¹⁸⁰ Ąžuolynas (literally, the "Oak Grove") is 63 hectares large urban park of mature oaks situated on top of the hill in the east part of the city centre of Kaunas.

¹⁸¹ Fiziško Auklėjimo Rūmų įstatymą priėmus, 1932, p. 7.

¹⁸² Landsbergis, Vytautas, Fiziško auklėjimo rūmai, 1931, p. 109.



86. Perspective drawing of the Chamber of Physical Culture, 1931.87. East facade drawing and longitudinal section through the swimming pool and exercise hall, 1931.

and will have to be the loyal centre for the best youth of Lithuania and restore our honour." 183

After a meeting with Minister of Education, it was decided to expand the program of the Chamber of Physical Culture. First of all, the chamber had to be an academic institution, which will prepare "future physical education teachers, army instructors and all those who want to acquire the rights to teach physical education."¹⁸⁴ It was planned to cooperate with the Medical Faculty and "establish special courses for doctors (for example, school doctors) and medical students."¹⁸⁵ It was not forgotten to include a wider circle of society: "it will be allowed for various sports organizations to use premises of the chamber. The chamber will also offer popular lectures in the field of physical education and sports."¹⁸⁶

Konstantinas Šakenis, the then Minister of Education, appointed architect Vytautas Landsbergis – Žemkalnis to develop the final project of the Chamber of Physical Culture. The young architect was the first architect, who graduated in Rome (Scuola Superiore di Architettura) and in Europe in general. Politicians of the temporary capital, who were looking at Europe, were impressed by Landsbergis-Žemkalnis' diploma. In addition, the architect was "diligent, fast, precise and thus earned the reputation of the prestigious architect and became extremely popular."¹⁸⁷

The project of the chamber was developed in 1931 and on October 14th the same year, a delegation of the Physical Education Society (it consisted of colonel Brunonas Štencelis, architect Vytautas Landsbergis-Žemkalnis and doctor Antanas Jurgelionis) presented the

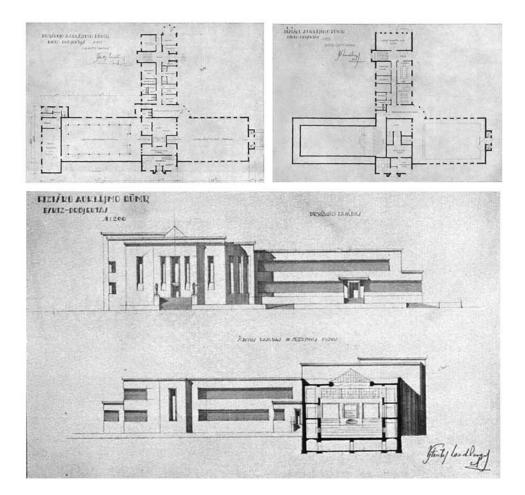
¹⁸³ Ibid, p. 109.

¹⁸⁴ *Ibid*, p. 113.

¹⁸⁵ Ibid.

¹⁸⁶ Ibid.

¹⁸⁷ Kančienė, Jolita; Minkevičius, Jonas - Architektas Vytautas Landsbergis-Žemkalnis, 1993, p. 21.



88. Ground floor plan of the Chamber of Physical Culture, 1931.
89. First floor plan of the Chamber of Physical Culture, 1931.
90. North facade drawing and cross section through the swimming pool, 1931.

plaster model of the chamber to the President of the Republic of Lithuania Antanas Smetona. [Figs. 83, 85] After Smetona recognised that "the construction of this chamber can hardly be postponed among the state affairs"¹⁸⁸, it was decided to start the construction in spring 1932.

Although in the beginning it was thought that the chamber should be built in the city centre, later it was decided that a territory next to *Ąžuolynas*, which is "close to the centre and far from the city dust"¹⁸⁹ is an ideal place for this object. Moreover, the stadium of the Lithuanian Union of Physical Education and the Tennis Club courts have been already operating in the site before the construction of the Chamber of Physical Culture. It was planned to design a 35-meter wide "sports alley" next to the centre, the beginning of which would be magnificently marked by the entrance arch to "the sports area".¹⁹⁰ [Fig. 84]

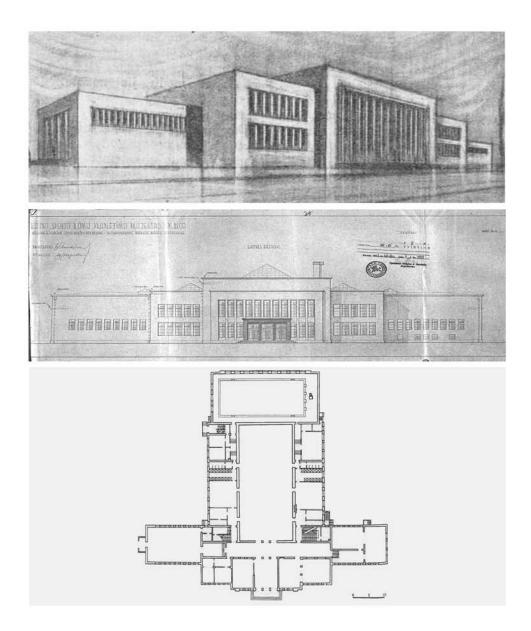
The Chamber of Physical Culture had to perform two functions: education and sports. The plan of the chamber was of cross configuration with the research and administrative unit in the vertical part and the great exercise hall and swimming pool, separated by men and women's locker rooms in the middle, in the horizontal part. [Figs. 88, 89]

The swimming pool had to become the main accent of the chamber. There were no swimming pools in Lithuania by that time, athletes exercised in open water bodies. Landsbergis-Žemkalnis made a profound research on the evolution of swimming pools from the Roman Baths of Caracalla to the most recent examples. The swimming pool of the chamber had to be very modern: lit from the bottom with searchlights and bypassed by glass corridors under the water, "the hall itself is lit from above. [Fig. 90] In summer,

¹⁸⁸ Fiziško Auklėjimo Draugijos delegacija pas Ekscelenciją Respublikos Prezidentą A.Smetoną, 1931, p. 191.

¹⁸⁹ Landsbergis, Vytautas - *Fiziško auklėjimo rūmai*, 1931, p. 110.

¹⁹⁰ *Ibid*, p. 110.



91. Perspective drawing of the Chamber of Physical Culture, 1933.
92. North facade of the Chamber of Physical Culture, 1933.
93. Ground floor plan, already with Jonas Putna's project for the swimming pool, 1958.

the glass roof is opened, and the rays of the sun and fresh air immediately get to the hall.^{"191} A very modern solution was applied to flat roof, where it was planned to set up "a solar terrace-solarium."¹⁹² [Fig. 87]

The architectonic expression of the chamber is perhaps most directly reflected by its architect's words: "the aim of the design of this chamber was to combine two things, two forms in one building: classics, the first great pioneer of physical culture (Greece) with modern times. The volumes of both blocks were designed according to the classical spirit, by modernizing only essential things, as required by today's architecture. And yet it was sought to develop a modern design for the building of the chamber."¹⁹³ [Fig. 86]

The first project of the chamber was developed in 1931, but after the start of the economic depression, the construction was stopped. Therefore, in 1933, Landsbergis-Žemkalnis developed the second, "more rational and compact" project.¹⁹⁴ [Figs. 91-92] The biggest loss was that the swimming pool had to be abandoned, and it was decided to postpone its construction to the future. It was implemented only in 1958 according to architect Jonas Putna's project.¹⁹⁵

The plan of the chamber, as in the first version, remained in the form of a cross. Its core consisted of the great sports hall with men and women's locker rooms on the sides. The front part of the building, next to Sporto Street, was intended to public and administrative premises, while wings on the sides were dedicated to sports: a small gym on the left side and two weightlifting halls on the right. [Fig. 93]

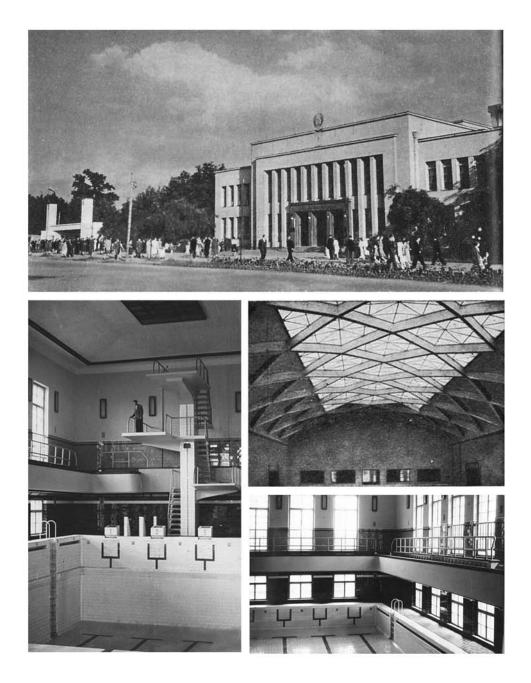
¹⁹¹ *Ibid*, p. 111.

¹⁹² Landsbergis, Vytautas - Fiziško auklėjimo rūmai, 1931, p. 111.

¹⁹³ *Ibid*, p. 113.

¹⁹⁴ Fiziško auklėjimo rūmai, 1932, p. 563.

¹⁹⁵ Jankevičienė, Algė; Levandauskas, Vytautas; Miškinis, Algimantas - *Kauno architektūra*, 1991, pp. 286-287.



94. Photograph of the north wing of the Chamber of Physical Culture.95, 97. Photographs of the swimming pool interior.96. Photograph of the half-cylinder-shaped sunroof of the main exercise hall.

Landsbergis-Žemkalnis' architecture of the chamber shows a clear desire to combine "classic spirit" with modern style: volume composition is symmetrical with window rhythmic typical to the classical architecture, compositional centre is highlighted. [Fig. 94] The architect used modern solutions as well: flat roof allowed to set up a terrace for exercising and "sunbathing"¹⁹⁶, half-cylinder-shaped sunroof of the main hall overlaid "33 x 16 meter opening"¹⁹⁷ thus creating functional and aesthetically expressive interior. [Fig. 96]

It was planned to set up a stadium with the platform for viewers and utility rooms at the Chamber of Physical Culture. Three auxiliary training grounds were planned next to the stadium. The project was developed by Landsbergis-Žemkalnis in 1934, but after it turned out that the stadium with sports facilities was too big, Feliksas Bielinskis developed a new plan in 1935. Bielinskis designed the representational gate as well.¹⁹⁸

¹⁹⁶ Fiziško auklėjimo rūmai, 1932, p. 563.

¹⁹⁷ Landsbergis, Vyt.; Milis S. - Naujos sistemos gelžbetoninis perdengimas, 1935, p. 24.

¹⁹⁸ Kančienė, Jolita; Minkevičius, Jonas - Architektas Vytautas Landsbergis-Žemkalnis, 1993, p. 29.

Second case study: Kaunas Polytechnic Institute¹⁹⁹

Lithuania regained Vilnius region under Lithuania-Soviet Union agreement on October 10th 1939. On the one hand, it was a joyous event, the capital was regained after ten years, but on the other hand, this event was linked to public anxiety about the imposition of the Soviet troops into the territory of Lithuania. This layout of the Soviet crews, violating the statehood of Lithuania and made under the Soviet Union-German *Ribbentrop-Molotov Pact* signed in 1939, was the first stage of loss of independence, which ended by the ultimatum of 13 June 1940 and the complete loss of the statehood.

After Lithuania was incorporated into the Soviet Union, Kaunas University, like the entire country, was quickly restructured in accordance with the principles of the Soviet system and communist ideology. The first act of the university reform was closure of the Faculty of Theology, and it was decided to move the Faculty of Mathematics-Natural Sciences to Vilnius University.²⁰⁰

Transfer of part of the faculties to Vilnius resulted in a specific structure of Kaunas University: in addition to the Faculties of Construction and Technology, it only had the Faculties of Medicine and History-Philosophy. Since the old university was restored in Vilnius, there was a dilemma how to further develop the two universities. There were no doubts about Vilnius University, having centuries-old history. Meanwhile, Kaunas University had two choices: either to develop the school into a full university by establishing missing faculties of Law, Economy, Natural Sciences and Exact Sciences or split it into separate specialised institutes. The ruling believed that one university is enough for such small region to avoid parallelism; two specialised high schools are

¹⁹⁹ At present the Kaunas University of Technology.

²⁰⁰ Matukonis, Algirdas; Duobinienė, Genė; Jakimavičius, Česlovas - Nuo Aukštųjų kursų Kaune iki Kauno technologijos universiteto 1920-1997, 1997, p. 93.

needed instead of Kaunas University. The Board of Technical Faculties agreed with this opinion. Moreover, higher demand for engineers was expected because of rapid industrial development.²⁰¹

On 31 October 1950, USSR Minister of Higher Education Sergey Kaftanov issued an order regarding reorganisation of Kaunas University to Kaunas Polytechnic Institute and Kaunas Medical Institute.²⁰² Thus, two high schools were established instead of Kaunas University, which took over the university's departments, staff, students, buildings and other assets.

Kaunas Polytechnic Institute inherited five buildings from the university, which were built in the interwar period, but none of them was specifically built for higher education institution, so they did not have premises specially adapted for this purpose. In 1960-1961, as the number of students was growing rapidly, there was a lack of facilities, so on the initiative of rector Kazimieras Baršauskas, it was decided to start building a separate campus, which would be "one of the most beautiful and modern in the country."²⁰³

In spring 1960, the Institute's board renewed its effort to get approval of the government of the Soviet Socialist Republic of Lithuania for the construction of the Kaunas Polytechnic Institute campus. After receiving this approval, Kaunas City Executive Committee appointed a 64-ha land site in *Žaliakalnis*,²⁰⁴ in a free, undeveloped area of the city, near the Faculty of Chemical Technology (Research laboratory built in 1935, architect Vytautas Landsbergis-Žemkalnis).²⁰⁵ Layout of the future campus was highly

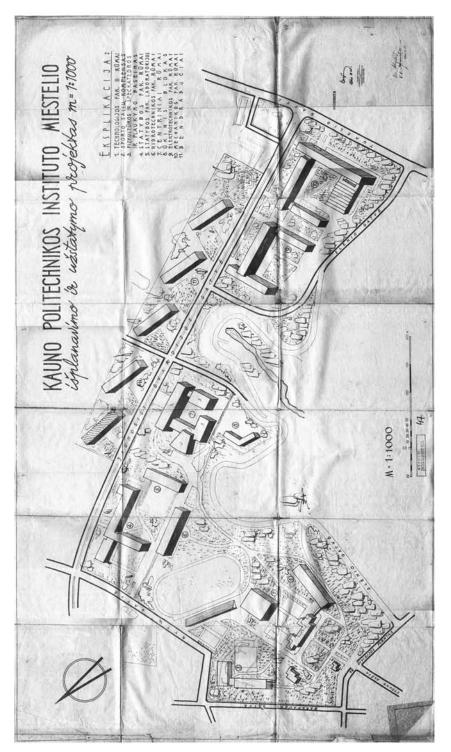
²⁰¹ *Ibid*, p. 128.

²⁰² Martynaitis, Marijonas - Kauno Antano Sniečkaus politechnikos institutas, 1979, p. 103.

²⁰³ Zabielskas, A. - *Trumpa ekskursija į ateitį*, 1963, p. 3.

²⁰⁴ Žaliakalnis (literally, "the green hill") is located on top of the hill in the north part of the city centre of Kaunas.

²⁰⁵ KAA, f. R-1702, ap. 2, b. 139, p. 24.



98. A. Lukošaitis, K.Šešelgis, P. Viliunas, B. Janavicius: first urban plan for the Kaunas Polytechnic Institute Campus, 1960.

influenced by oblong configuration, complex landscape and congested highway passing through the land site, Tunelio Street.

This area belonged to the fortress of the Russian Empire from the second half of the nineteenth century to the First World War (1882-1915) and was used for military purposes. Its landscape was rugged, hilly, but levelled before the construction of Kaunas Polytechnic Institute. Part of the fortress of historical and urban heritage significance was destroyed.²⁰⁶

The first scheme of the urban plan was developed by the commission consisting from professors of the Department of Architecture, who currently worked in Kaunas Polytechnic Institute: A. Lukošaitis, K. Šešelgis, P. Viliūnas and B. Janavičius.²⁰⁷ Given the complex landscape and geometric configuration of the land site, linear configuration of the buildings was selected. The campus was divided into separate areas: education, sports, recreation and residential. The residential area, which consisted of dormitories, was separated from the education area by the street passing through the whole territory of the campus. [Fig. 98]

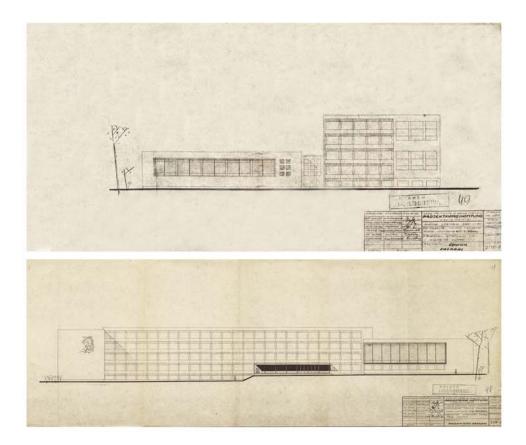
Since the faculty of Construction and Architecture lacked facilities the most at that time, funding was first requested for this object.

On 27 September 1960, the State Committee of Construction and Architectural Affairs of the Lithuanian SSR Council of Ministers "partially"²⁰⁸ approves the proposed urban plan of the Kaunas Polytechnic Institute campus and points out that typical project of the "Technical High School teaching corpus No. 936, developed in 1960 by the Design

²⁰⁶ Bučas, Jurgis; Minkevičius, Jonas; Kančienė, Jolita - Kauno technologijos universiteto pastatai: istorija ir architektūra, 2000, pp. 131-132.

²⁰⁷ Matukonis, Algirdas; Duobinienė, Genė; Jakimavičius, Česlovas - Nuo Aukštųjų kursų Kaune iki Kauno technologijos universiteto 1920-1997, 1997, p. 157.

²⁰⁸ KAA, f. R-1702, ap. 2, b. 139, p. 30.



99. Vytautas Landsbergis-Žemkalnis: west facade drawing of the Faculty of Construction, 1960.100. Vytautas Landsbergis-Žemkalnis: north facade drawing of the Faculty of Construction, 1960.

Institute "Giprovuz" in Moscow and coordinated with the Ministry of Higher and Special Secondary Education and other relevant organisations"²⁰⁹ was applied to the architecture of the Faculty of Construction. [Figs. 99, 100] Further development of the urban plan of the Kaunas Polytechnic Institute campus and adaptation of faculty buildings in accordance with typical projects were transferred to the Lithuanian SSR Urban Construction and Design Institute Kaunas Branch.

Director of the Urban Construction and Design Institute appointed young architect Vytautas Dičius to develop a project for the adaptation of the Faculty of Construction to the location. The work had to be done quite quickly. In order to receive funds for the future construction, the Faculty of Construction "had to be designed and shown to the government within three months."²¹⁰

Without having the final urban plan, it was decided that "it is more appropriate to construct the building at the end of the land site, in the northern part, thus not preventing the further planning of the campus."²¹¹ "The Faculty of Construction is moved 30 metres away from the street. [...] The land site will include the car parking lot, rest areas [...] and green zones."²¹² Great attention was paid to building structures, as required by the Soviet Union laws. Prefabricated elements had to be used for the structures in accordance with catalogues for "Industrial Building Products for the Construction of Residential and Public Buildings" and "Unified Prefabricated Concrete Products and Structures for Industrial Construction."²¹³

²⁰⁹ KAA, f. R-1702, ap. 2, b. 139, p. 3.

²¹⁰ Petrulis, Vaidas - Vytautas Jurgis Dičius: kūryboje sustingęs laikas, 2006, p. 36.

²¹¹ KAA, f. R-1702, ap. 2, b. 139, p. 3.

²¹² KAA, f. R-1702, ap. 2, b. 139, p. 4.

²¹³ KAA, f. R-1702, ap. 2, b. 139, p. 12.



101. V.Dičius, M.Špikienė, A.Zeidotas: competition entry for the master plan, 1963. 102. V.Dičius, M.Špikienė, A.Zeidotas: final master plan for the Kaunas Polytechnic Institute Campus, 1964.

In 1963, in the middle of the construction of the Faculty of Construction, the Urban Construction and Design Institute board decided to organise a competition for the layout of the Kaunas Polytechnic Institute campus.²¹⁴ Although there were no official competitions at that time, the institute usually received the task and evenly distributed works to architects working there. However, since this campus was the first educational institution of this size and nature in Lithuania, the Design Institute decided to announce an internal competition. Three versions of the solution were proposed, which were mainly developed by young architects. The layout projects were adapted to the complex configuration of the landsite and the Faculty of Construction.

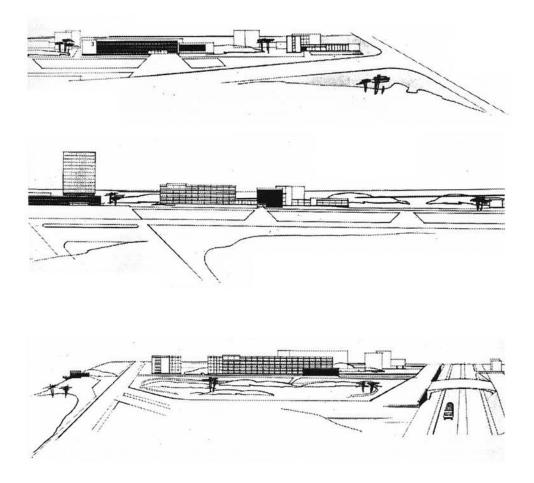
"A solution of authors of the first version, V. Dičius, M. Špikienė and A. Zeidotas, was very well organised. They proposed to creatively use slopes, limit the land site in the west by establishing laboratories and utility rooms.

When preparing the second version, architects P. Janulis, J. Vanagas and A. Jakučiūnas paid particular attention to the establishment of functional areas in the campus and elimination of external traffic from the internal movement of the campus. They came up with the idea to direct Jaunosios Gvardijos Street (now Studentų Street) to north-eastern edge. This helps to create a uniform campus area isolated from any extraneous traffic.

The idea of faculty blocking belongs to authors of the third version: A. Balinskaitė, V. Juršys and A. Jankūnas."²¹⁵

Design proposals were presented to the public and considered by the Union of Architects Kaunas Branch, where "after discussing advantages of each of them, architects decided to develop the final project on the basis of the first version."²¹⁶ [Fig. 101]

 ²¹⁴ Zabielskas, A. - *Trumpa ekskursija į ateitį*, 1963, p. 3.
 ²¹⁵ Ibid.



103. Perspective drawings of the Kaunas Polytechnic Institute Campus, 1960s.

In 1964, the final urban plan of the Kaunas Polytechnic Institute campus was completed, authors of which were architects of the Urban Construction and Design Institute V. Dičius, N. Špikienė and A. Zeidotas.²¹⁷ [Fig. 102] However, some changes were made to the urban plan: it was adapted to the growing number of students. In 1964, the institute could accept 8,000 students and lecturers²¹⁸, and in the second half of the 60's, this number increased to 14,500.²¹⁹

Although it was planned to complete the construction of the entire campus by 1975,²²⁰ since 1971, its construction has slowed down considerably. At that time, the majority of funds were allocated to the restoration of Vilnius University Central Building and the construction of Vilnius University campus in Saulėtekis.²²¹ Funding of the campus did not improve in 1980 as well. Therefore, most of the projects had to be abandoned.

The territory of the Kaunas Polytechnic Institute campus was planned by dividing it into three functional areas: teaching-education, sports and residential. It was planned as a separate city within a city: "the republic of students".²²² This type of planning is directly related to Le Corbusier architectural and social ideals described in one of the most important documents of the international modernist movement: the Athens Charter of CIAM 1933/1943,²²³ which states that the main functions of the city are housing,

²¹⁶ Ibid.

²¹⁷ Bučas, Jurgis; Minkevičius, Jonas; Kančienė, Jolita - Kauno technologijos universiteto pastatai: istorija ir architektūra, 2000, p. 72.

²¹⁸ Minkevičius, J. - *Naujosios Kauno statybos*, 1964, p. 18.

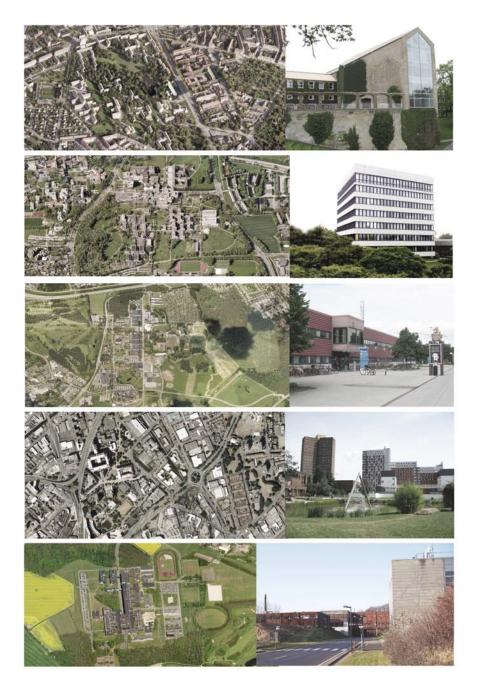
²¹⁹ Venckutė, V. - Čia bus jaunystės miestas, 1973, p. 2.

²²⁰ Vasiliauskas, T. - *Studentų laukia įkurtuvės*, 1964, p. 2.

²²¹ Bučas, Jurgis; Minkevičius, Jonas; Kančienė, Jolita - Kauno technologijos universiteto pastatai: istorija ir architektūra, 2000, p. 73.

²²² "Studentų Respublika" Žaliakalnyje, 1965, p. 3.

²²³ 77. The four keys to urban planning are the four functions of the city: dwelling, work, recreation (use of leisure time), transportation. 79. The plan should ensure that the daily cycle of activities between thedwelling,



104. Aarhus University Campus, Denmark, 1931/1933. 105. Regensburg University Campus, Germany, 1965/1967.
106. Linköping University Campus, Sweden, 1970s. 107. Aston University Campus, Great Britain, 1949/1965.
108. Odense University Campus, Denmark, 1966.

recreation, work and circulation. The Kaunas Polytechnic Institute campus embodies the most significant provisions of the Athens Charter: division into functional areas, green areas, separation of passengers and traffic, multi-storey construction and flat roofs. [Fig. 103]

In the 50's, The USSR sought to use the same principles not only in the construction of residential areas, but also educational and health care institutions. As highlighted in the press of that time when presenting the future Kaunas Polytechnic University campus: "the campus will become an independent region with educational, administrative, commercial, residential and sports sectors in the future"²²⁴, where in addition to faculty buildings, central building and dormitories, "students and lecturers will have the opportunity to use a multi-purpose utility service unit with department store, pharmacy, bookstore and canteen, as well as students' clinic. [...] There also will be an open air swimming pool,"²²⁵ and everyone will be able "to enjoy beautiful nature."²²⁶ "Residents of the region will rarely have to go to the centre of the city: their cultural and household needs will be met by the institutions of the regional centre."²²⁷

The idea to build the university in a free area on the outskirts of the city was not original. In the 50s-60s, this type of planning was typical to most of the new higher education institutions of the world. [Fig. 104-108] On the one hand, due to the rapidly growing number of students, there was a need to provide universities with facilities as faster and more cost-effectively as possible. On the other hand, it is closely related to the fact that individual faculty buildings were no longer constructed, but entire university campuses.

workplace and recreation (recuperation) can occur with the utmost economy of time. Le Corbusier - *The Athens charter*, 1973, pp. 95-97.

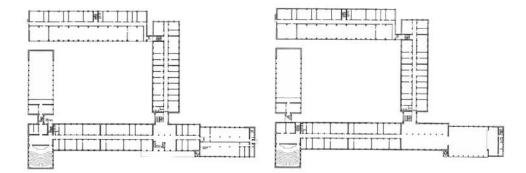
²²⁴ Vasiliauskas, T. - *Studentų laukia įkurtuvės*, 1964, p. 2.

²²⁵ Venckutė, V. - Čia bus jaunystės miestas, 1973, p. 2.

²²⁶ Zabielskas, A. - Trumpa ekskursija į ateitį, 1963, p. 3.

²²⁷ Minkevičius, J. - Naujosios Kauno statybos, 1964, p. 17.





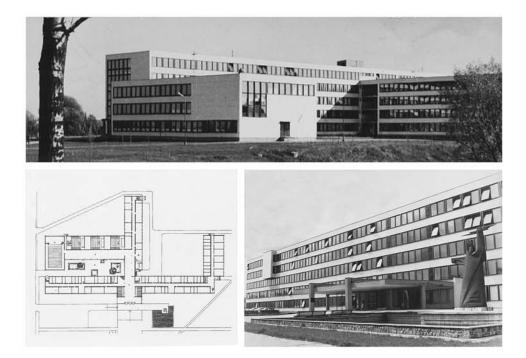
109, 110. Vytautas Dičius: Faculty of Construction of the Kaunas Polytechnic Institute, 1961/1964.
111. Ground floor plan of the Faculty of Construction.
112. First floor plan of the Faculty of Construction.

Such university complexes did not only include university buildings, but also a number of ancillary buildings such as libraries, dormitories, canteens, laundries and students' clubs. Therefore, it was logical to construct such university campuses outside the city centre, where the university was free to expand. In this way, university campuses became independent units of the city with their own residents, infrastructure and service staff.

The urban plan and architecture of the Kaunas Polytechnic Institute campus is one of the architectural and urban cultural phenomena of Soviet Lithuania, which show the historical context, educational needs, architectural development trends and technical conditions of that time. Specific language of abstract forms points to the aesthetic goals and professional level of architecture of that time. The Kaunas Polytechnic Institute campus was one of the first urban complexes of this scale in Soviet Lithuania.

Urban compositional structure of the campus is linear and based on the principle of asymmetry. This archetypal decision was made taking into account the local conditions, but at the same time it has compositional and aesthetic value. This solution rejects rhythmical, monotonous balance of spaces and volumes. The buildings are placed away from each other, but along the main compositional axis, Studentų Street, thus creating a linear city allusion. Such open form building type was also chosen for pragmatic reasons. In the likelihood that the university will grow in the future and it will need more buildings, the university is left the possibility to grow along the compositional axis in both sides.

Teaching units of the faculties are the most notable architectural accents of the campus. They stand out by their volumes and architectural expression. The faculty units reflect the then construction technology, architectural trends and are like witnesses of the history of architecture of Soviet Lithuania. After adopting the decree "On the removal of excesses in



113, 115. Vytautas Dičius: Faculty of Electronics of the Kaunas Polytechnic Institute, 1965/1969.114. Ground floor plan of the Faculty of Electronics.

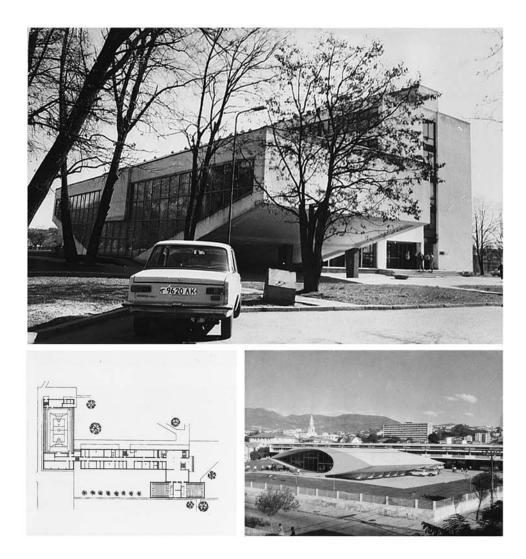
design and architecture^{"228} in 1955 and condemning pseudo-historicism of the Stalinist period, the whole country chose the way of the intensive construction industrialisation, which mainly reflects the general global trends in the post-war construction. However, with the very limited choice of building materials and structural elements, particularly metal, as well as low quality of construction work, this stylistic direction reflected formal side of functionalism, rather than an organic synthesis of technology and aesthetics. However, even under such condition, architects made great efforts to obtain as many functional and aesthetic advantages as possible.

The construction of the Kaunas Polytechnic Institute campus started from the Faculty of Construction, which was designed by Urban Construction and Design Institute architect Vytautas Dičius in 1960-1964. Abstract geometric shapes, slightly crossing volumes, black-and-white contrasts, continuous bands of windows and flat roofs: all of this shows the mature language of modern architecture. The central entrance is highlighted with elongated flat roof. Sides of the unit of lecture theatres are highlighted by large glass planes, rising steps to adapt to the contour of the lecture theatres. [Figs. 109-112]

Architectonic expression of the Faculty of Electronics built in 1969 is also based on contrasting glass and concrete structure alignment, minimal aesthetic characteristic of functionalism according to the principle "form follows function". This five-storey building is enlivened by a swimming pool with a monumental brass sculpture of Thunder (1966, sculptor J. Ruzgas)²²⁹ at the main entrance, which tells about the then interaction between arts and architecture, when artistic and architectural works harmoniously merged into one whole. [Figs. 113-115]

²²⁸ Resolution of the Central Committee of the Lithuanian Communist Party and the USSR Council of Ministers "on the removal of excesses of design and construction".

²²⁹ Bučas, Jurgis; Minkevičius, Jonas; Kančienė, Jolita - Kauno technologijos universiteto pastatai: istorija ir architektūra, 2000, p. 140.



116. Vytautas Dičius, Kostas Zikus: Faculty of Chemical Technology of the Kaunas Polytechnic Institute, 1965/1970.
117. Ground floor plan of the Faculty of Chemical Technology.
118. Oscar Niemeyer: Colégio Estadual Central, Belo Horizonte, 1954.

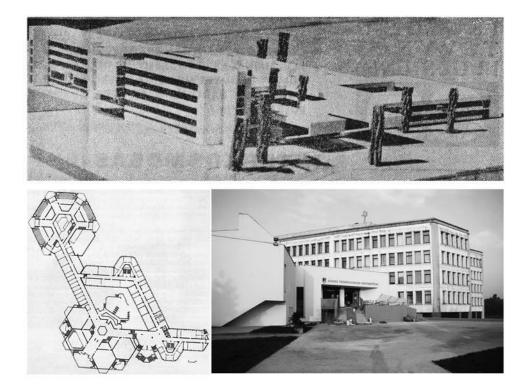
Original architectural image of the campus is strengthened by the complex of Chemical Technology buildings. The lecture hall unit of the form of inverted triangle adds variety to correct elongated rectangular five-storey laboratory and administration unit. This compositional solution reminds of Colégio Estadual Central in Belo Horizonte designed by Brazilian architect Oscar Niemeyer in 1954, the form of which clearly expresses the character of the interior space, plays a role of small architectural form and is contrasted to the multi-storey unit.²³⁰ [Figs. 116-118]

During the so-called Khrushchev thaw period, the architectural atmosphere became freer. Periodicals tolerated a wide range of architectural topics, published first positive articles about the achievements of Western architecture, and architects started touring Western countries more actively. Nevertheless, despite certain freedom and return to international tendencies, development of architectural thought was still closely related to political ideology; from one hand, popularisation of "socialist-minded" architects such as Frank Lloyd Wright, Le Corbusier, Oscar Niemeyer, Kenzo Tange and Alvar Aalto²³¹, but from another, still critically echoing the architectural "achievements" of capitalist countries.

The Faculty of Light Industry of Kaunas Polytechnic Institute was designed in 1969 by architects Vytautas Dičius and Romualdas Kemežys. It had to be the largest and the most modern civil building in Kaunas. "This complex will consist of four blocks. Faculties of light industry and engineering economy together with educational and administrative facilities will be established in the main block, a five-storey building with socle floor and basement. [...] The facade of this building is dominated by horizontal bars [...]. In order to avoid monotony, the main entrance is highlighted [...]. The main entrance was pushed forward by three metres; it is dominated by equal planes of lift and central staircase

²³⁰ Abramauskas, S. - Architektas ir pedagogas, 1980, p. 9.

²³¹ Marboe, Isabella – Soviet Modernism, 2012, online source.



119. Vytautas Dičius, Romualdas Kemežys: Faculty of Light Industry, 1969/1971 (not realized).
 120. Ground floor plan of the Faculty of Light Industry.
 121. Danute Petkelienė: Faculty of Light Industry of the Kaunas Polytechnic Institute, 1979/1984.

galleries. [...] Prefabricated concrete and glass was mostly used in the construction. The exterior of the building will be dominated by white colour, which will stand out nicely in the green background."²³² However, due to delayed funding, the project had to be abandoned. [Fig. 119]

After architect Vytautas Dičius went to Vilnius, the faculty was designed much later by the Urban Construction and Design Institute architect Danute Petkelienė. Therefore, its architecture reflects "expressionistic trend" which is different from functionalism.²³³ This complex was built in 1979-1984 after appearance of a greater variety of prefabricated structures. The complex has a sophisticated rhombic layout. Its composition is based on the combination of contrasting one-storey and five-storey buildings. [Figs. 120, 121]

The project of the Central Institute Building, which had to complete the architectural ensemble of Kaunas Polytechnic Institute, was not implemented. According to the original idea, sixteen-storey "skyscraper, shining with aluminium and glass"²³⁴, in addition to utilitarian-functional needs, had to represent the entire complex of the campus.

²³² Misevičius, V. - *Rūmai stambiausi Kaune*, 1969, p. 3.

²³³ Bučas, Jurgis; Minkevičius, Jonas; Kančienė, Jolita - Kauno technologijos universiteto pastatai: istorija ir architektūra, 2000, p. 140.

²³⁴ Zabielskas, A. - Trumpa ekskursija į ateitį, 1963, p. 3.

4 | portugal. The university of coimbra

Historical and political context of Portugal

At the beginning of the twentieth century Portugal was ruled by an authoritarian monarchy which was later replaced by the Republican revolution in 1910. This democratic period was, however, followed by political instability and after the participation in the First World War led the country into the economic collapse. "By the mid-1920s all the influential sectors of society – the professional middle class, the army and the Church – had come to the conclusion that the republic would have to be replaced by a more stable regime."²³⁵

On 28 May 1926, a *coup d'état* comanded by General Gomes da Costa put an end to the unstable Portuguese Republic and installed a national dictatorship. The military dictatorship would last untill 1933, when António de Oliveira Salazar with a change of constitution installed a new authoritarian regime the *Estado Novo*, the New State.

By 1928 the head of the State, President Óscar Carmona, handed over complete responsibility for the Portuguese finances to a professor of economics at the University of Coimbra, António de Oliveira Salazar. The success of financially stabilizing the country led Salazar to a position of President of the Government Council in 1932, which he held until was incapacitated by a stroke in 1968.

The basis of the *Estado Novo* was the 1933 constitution which replaced the multi-party system with a one-party system, the *União National* (National Union). [Fig. 122] The New State may be described as authoritarian, anti-communist, corporatist, conservative, nationalist and colonialist regime with fascist inspiration. Unlike Hitler and Mussolini, Salazar had "a little personal charisma and avoided any hint of personal cult."²³⁶ He did,

 ²³⁵ Lee, Stephen J. - European dictatorships 1918-1945, 2000, p. 235.
 ²³⁶ Ibid, p. 236.



122. Almada Negreiros: poster for the constitution of 1933.

however, had his ideas clearly and forcefully stated. The *Estado Novo* relied on repressions, censorship, propaganda, secret police, and the support of army and the Catholic Church. Salazar also sought to develop a national pride based on glorification of Portugal's history; for this reason his cult of Portuguese overseas empire with all colonies assumed a major importance.

Overall, Salazar tried to develop a state which would be based on tradition and conservative Roman Catholic Church values, with the motto "Deus, Pátria e Família" (God, Fatherland and Family).

Besides the key figure of Salazar, there were engineer Duarte Pacheco, the Minister of Public Works and Communication, and journalist António Ferro, the Director of Propaganda who carried out important battle to create the New State.

During the Second World War the New State remained neutral. However, in post-war period Salazar took the two edged position: from one hand, Portugal was integrated into NATO, the anti-communist ally, in 1949, but from another, Salazar "intentionally isolated Portugal from the outside world."²³⁷ Although the country experienced a certain economic growth after the Second World War, the "Colonial war", massive emigration, and uprising opposition of political activists, mainly students, led the regime towards the inevitable end. On 25 April of 1974, also known as Carnation Revolution, brought the end to the dictatorial regime of the *Estado Novo*.

²³⁷ Lee, Stephen J. - European dictatorships 1918-1945, 2000, p. 238.

Architectural context of Portugal: 1920-1970

On May 26th, 1926 a military coup ended sixteen years of republican regime, by replacing it with a dictatorship which would eventually evolve into a fascist type political system. At the same time as the new regime consolidates its hold on power by reaffirming its political control as the "Estado Novo" (the New State), the architects are called upon to play an important new role, by placing the "new architecture" movement at the new regime's service. "This period can actually be labeled as a paradox, since to the conservative and nationalist vision of the fascist ideal, the new regime adds a strong pragmatic ideal of building a "spirit of the New", clearly expressed in the political leadership action, speech and propaganda. Pedro Vieira de Almeida stands out two characters from the above mentioned paradox, which were contemporary of Oliveira Salazar's assumption of power, and played a decisive role in the construction of the regime's ideology – António Ferro and Duarte Pacheco"²³⁸

The *Estado Novo* was determined convey an image of progress and renovation. This had been clearly understood by both Duarte Pacheco, minister for Public Works and Communications (from 1932 to 1936 and again from 1938 to 1943), and António Ferro, who was director of the SPN (Secretariat for National Propaganda), from 1933. "The new regime practically shuns the established academic architects and looks for the younger generation in its quest for an initial architectural image capable of reaffirming the myth of its own modernity."²³⁹

The *Estado Novo* effectively gave a whole new generation of architects the possibility of helping build an image that could be appreciated from abroad in a favorable perspective, clearly showing that innovative solutions where being explored and implemented here,

²³⁸ Grande, Nuno - Obra pública, 2002, p. 121.

²³⁹ Fernandez, Sergio - Percurso: arquitectura portuguesa: 1930-1974, 1988, p. 17.



123. Duarte Pacheco the Minister of Public Works and Communication.

namely exploring the possibilities offered by reinforced concrete, uncluttering décor and volume contrast. Although its authors – the generation of young architects²⁴⁰ graduated between 1919 and 1927 from the Architecture School of EBAL (Lisbon Fine Arts School)²⁴¹ – did not possess in the beginning any strongly entrenched conception of modernism, because they had adhered to that current by way of the *Art Déco* (and had been formed within the framework of the eclectic cultural environment of the republican period), there seem to remain no doubts whatsoever that they managed to "break way" by having the new regime adopt and support a new, dynamic, rational, international idea of construction.

The modernist architectural wave in projects from the 1920's and actual construction in the 1930's was given a strong impulse by the public works financial policy guided by Oliveira Salazar and dynamically implemented by the minister Duarte Pacheco both of whom decided to distribute the new public works projects to the modernist architectural generation born around the turn of the previous century. [Fig. 123] During that period, the new regime managed to uphold a "hands off" policy in what concerned architectural creation, by not interfering in any way with their work. The positive result of that policy was that in a great number of public works built during that period, the architects were given the opportunity to freely express their modern concepts and ideas.

It is within this context, that between the 20's and 30's arise the main protagonists of the "possible rupture" were the *Art Déco* esthetic evolves into an experimental modernism: Cristino da Silva – "Capitólio" Movie Theater (1925); Carlos Ramos – Radiology Pavilion of the "Instituto Português de Oncologia" (1927-33); Pardal Monteiro – Lisbon

²⁴⁰ Luís Cristino da Silva (1896-1976), Cassiano Branco (1897-1970), Pardal Monteiro (1897-1957), Carlos Ramos (1897-1969), Jorge Segurado (1898-1990), Cottinelli Telmo (1897-1948) and Rogério de Azevedo (1898-1983).

²⁴¹ Caldas, João Vieira - Cinco Entremeios sobre o Ambíguo Modernismo, 1997, p. 23.



124. Cristino da Silva: "Capitólio" Movie Theater, Lisbon, 1925. 125. Pardal Monteiro: Instituto Superior Técnico, Lisbon, 1927/1935. 126. Carlos Ramos: Radiology Pavilion of the "Instituto Português de Oncologia", Lisbon, 1927/1933. 127. Jorge Segurado: National Mint "Casa da Moeda", Lisbon, 1934/1936. Engineering School "Instituto Superior Técnico (1927, built during the 30's); Cassiano Branco – "Victória" Hotel (1934) and Jorge Segurado – National Mint "Casa da Moeda" (1934-36). ²⁴² Nuno Portas confirms this period as "the only where an international vanguard movement – its profound motivations, and not simply an epidemic or a fashion statement – reverberated almost without delay in this country."²⁴³ [Figs. 124-127]

The development of a modernist architecture in Portugal during the 20's and 30's does not originate from any sort of well-organized movement, mainly because Portugal was lacking a transition generation. A generation of pioneers whose work, like Van de Velde's or Mackintosh's, Behrens's or Hoffmann's, Loos's or Berlage's had prepared the way for the modernist advent of the post-war period.²⁴⁴ On the other end, the base academic training of those first authors was deeply entrenched in eclecticism and the *beaux-arts* patterns of the 19th century.²⁴⁵ In addition, the first generation of architects would therefore have no means by which to produce any noteworthy theoretical reflection and that generation has not followed, nor reacted to any sort of consistent ideological framework.²⁴⁶ The Portuguese modernism was born devoid of the social intentions (social housing and urban utopia), that were clearly the foundations for the work of the principal European modernists.

These facts strongly influenced the specificity and moderation of the architectural modernism in Portugal, in as much as even in the more rationalist creations, symmetry and monumentality were rarely abandoned, also a minimum use of décor, despite the fact that this trend was modernized by *art déco* abstraction. "Renovation can be seen mainly

²⁴² **Gonçalves, José Fernando de Castro** - Ser ou não ser moderno: considerações sobre a arquitectura modernista portuguesa, 2002, pp. 81-85.

²⁴³ Portas, Nuno - A Evolução da Arquitectura Moderna em Portugal: uma interpretação, 1978, pp. 707-708.

²⁴⁴ Caldas, João Vieira - Cinco Entremeios sobre o Ambíguo Modernismo, 1997, p. 24.

²⁴⁵ Fernandes, José Manuel - Português suave: arquitecturas do Estado Novo, 2003, p. 36.

²⁴⁶ *Ibid*, p. 36.



128. Cristino da Silva: National High School Fialho de Almeida, Beja, 1930.

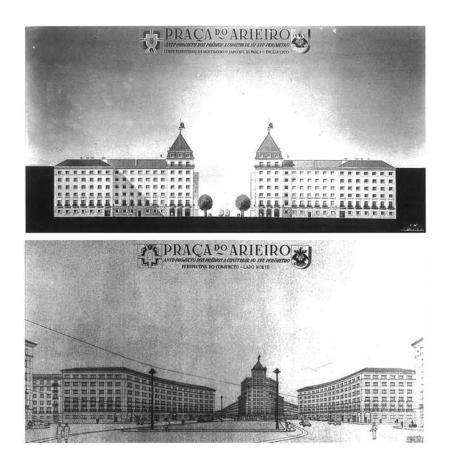
in facades but influences in the spatial quality are kept to a minimum [....], both from the buildings and the city's point of view [....] the expanded usage of reinforced concrete has not entirely corresponded to its bigger constructive potential. Concrete construction was seen as a limited technique in situations such as the placement of lintels spanning openings, parts of spans, consoles, etc. This characteristic is seen as very important because it clearly confirms a partial understanding of the new and modern architectural concept's technical potential. [....] Therefore, it is precisely through the codification of the facade's architectural elements that its crystallization as a "style" can be clearly defined, and the proliferation of modern symbols such as towers, volume articulation, bow-windows horizontally articulated with balconies, horizontal continuity, etc."²⁴⁷

In 1930, the Government launched a contest for several new high school projects spread throughout the country and this resulted in a good number of modernist drawings and constructions. The Beja High School project, won by Cristino da Silva in 1930 deserves a special mention thanks to its clearly functionalist (and internationalist) architecture, but also marks the origins of the reaction against the application of the modernist movement principles in Portugal. That new High School, with its pure but articulated volumetric, flat roof and large windows set on otherwise bare walls, was greatly criticized for not being correctly adapted to the region's hot and dry weather. "One could ask what was all that functionality for if it could not defend the users from the Alentejo climate, did not address the particular Mediterranean solar incline and lighting patterns, the precariousness of our construction and building material industries?"²⁴⁸ [Fig. 128]

Towards the end of the 30's, as the regime increasingly consolidated its power, and parallel with the growing influence of the more extremist factions inspired by the

²⁴⁷ **Gonçalves, José Fernando de Castro** - Ser ou não ser moderno: considerações sobre a arquitectura modernista portuguesa, 2002, pp. 86-87.

²⁴⁸ **Portas, Nuno** - A arquitectura para hoje. Evolução da arquitectura moderna em Portugal, 2008, p. 176.



129. Cristino da Silva: Areeiro Square , Lisbon, 1938.

European fascisms, some voices started proposing a "national" architecture in opposition to the one designated as international or even communist inspired. Coincidently or not, the regime increasingly felt the need to create its own architecture. Already fully within this framework, 1938 sees the birth of the Areeiro Square project by architect Cristino da Silva – one of the modernist vanguard exponents - inspired both by 18th century motives and national-socialist grandeur and monumentality.²⁴⁹ [Fig. 129] With rare exceptions, all of the first generation architects followed in his footsteps.

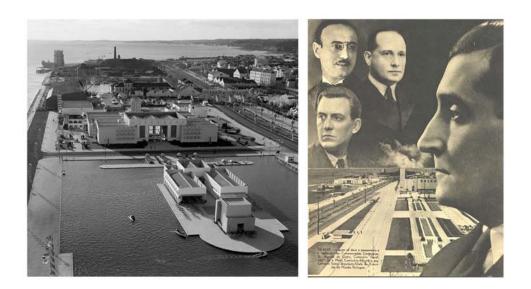
It is therefore the same regime that initially supported the first modernist architects, that now progressively encourages them to cooperate in a "cultural restoration"²⁵⁰ process, now on top of the government's priority agenda. The extraordinary surge in public works was meant to vindicate the regime's capacity and ability to perform and also mirror its fundamental values; on the one hand, authority, discipline and order, and on the other the cult of the nation, family and the rural world.

Architecture was henceforth seen as a privileged vehicle of ideological propaganda, not only because of the simplicity of its manipulation at project level, but also because of the durability and mandatory use of the finished works.

The 1940 "Portuguese World Exhibition" constituted the most important milestone in this fundamental change in Portuguese architecture. Inaugurated in 23rd June, 1940 in "Praça do Império" (Empire Square) in the Belém area this exhibition crowned the double celebration of both the centenary of Portugal's Foundation in 1140, and the Restoration of Independence in 1640. Antonio Ferro, head of the National Propaganda Secretariat, published an article were he claimed that this undertaking commemorated "in a grand historical exhibition and great historical documentary, the regime's strength and

²⁴⁹ Pereira, Nuno Teotónio - Foi o salazarismo um fascismo? O que diz a arquitectura, 1993, p. 26.

²⁵⁰ **Portas, Nuno** - A arquitectura para hoje. Evolução da arquitectura moderna em Portugal, 2008, p. 177.



130. Aerial view of the "Portuguese World Exhibition", Belém, 1940.131. Special issue of the magazine "Comércio Português", n. 7, 1940.

achievements."251 Minister Duarte Pacheco commissioned almost all the most active architects of the time - Cristino da Silva, Carlos Ramos, Pardal Monteiro, Rodrigues Lima, Jorge Segurado, Reis Camelo, Cassiano Branco and Cottinelli Telmo, in order to setup a "great show of the regime".²⁵² As the exhibition's chief-architect, Cottinelli Telmo designed the overall project and layout for the exhibition and distributed each pavilion individually to a group of architects with a modernist past. All of them were certain that they were strongly contributing to the creation of a mythical image of their country. At the time, the architects felt that "the international modernism of their earlier work dating five or ten years back, something like a kind of aesthetic blank board, was not adequate to the present exalted historical context, and even if they were not subjectively with Raul Lino, it was after all him who was "right"...Building functional boxes was definitively not enough, they had to wrap those in memories, and those memories were called "rústico" (the people's roots) and "joanino" (the origins of power, the heyday of the empire), or better still the blending of both."253 José-Augusto França commented that the Portuguese World Exhibition was "a fair were only history was sold - at the unknown price of ideological propaganda."254 [Figs. 130, 131]

In 1941, when Hitler's power was at its peak, Albert Speer in person presented in Lisbon a grand Exhibition of Modern German Architecture that caused a great uproar and lasting impression. Cristino da Silva, the author of Areeiro Square repeatedly mentioned to his students that what they were seeing was the architecture of the future, in opposition to the modernist trends they persevered in following.²⁵⁵ The national-socialist approach,

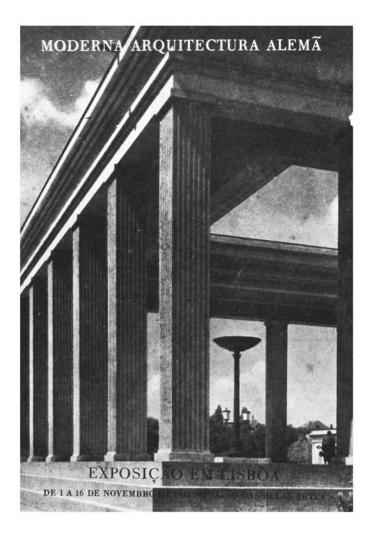
²⁵¹ Acciaiuoli, Margarida - A Exposição do Mundo Português, 1982, p. 55.

²⁵² **Portas, Nuno** - *A Evolução da Arquitectura Moderna em Portugal: uma interpretação*, 1978, p. 719.

²⁵³ Portas, Nuno - A arquitectura para hoje. Evolução da arquitectura moderna em Portugal, 2008, p. 185.

 ²⁵⁴ Ramos, Jorge - Modernidade e tradição algumas reflexões em torno da exposição do Mundo Português, 1987,
 p. 179.

²⁵⁵ **Pereira, Nuno Teotónio** - A Arquitectura do Estado Novo como instrumento de inculcação ideológica, 2008, p. 197.



132. Poster of the Exhibition of Modern German Architecture, Lisbon , 1941.

complementing as it did the regime's lessons derived from the grand exhibition of 1940, decisively and definitively contributed to the final demise of the international modernist concept in Portuguese architecture. [Fig. 132]

From 1940, such models became mandatory for new commissioned public works. And minister Duarte Pacheco, notable for the impulse he gave to state construction, became the official controller of the new paradigm in style. Nuno Teotónio Pereira points out the officially recommended (and if necessary imposed) styles:

For large public buildings like universities, cinemas, theaters and courtrooms ("justice palaces"), the prevailing style should be of that of rhetoric monumentality with classic roots, very similar to the German and Italian models of that time. Those are the buildings that can be accepted as the *reactionary modernism* of the 1930s, conveying with eloquence the supreme value cultivated by the totalitarian regimes: the unquestionable authority of the state, personified in the "leader".

For smaller public buildings, normally located in smaller cities or even villages, rural and regional themes were clearly preferred: strongly defined roofs and eves, lavishly carved wedges, cornices and span frames, and sometimes even baroque pinnacles. Primary schools, regional inn's, larger postal offices, state bank "Caixa Geral de Depósitos" buildings, National Guard barracks and posts and also social housing projects are included in this group.

Monumentality with a touch of regional history and motifs is often also present in hybrid models such as those employed in many middle dimension public buildings such as



133. Poster of the "15 Years of Public Works: 1932-1947", Lisbon , 1948.134. Report of the "1st National Architectural Congress", Lisbon , 1948.

justice palaces, high schools or smaller postal offices located in provincial capitals, and also in some urban housing buildings.²⁵⁶

The end of World War II, and the demise of the fascist dictatorships that encouraged monumentality, did not bring about freedom of style in public works as quickly as could be expected. The existing European conditions confirmed without a margin of doubt, the triumph of modern architecture over the traditionalist and academic tendencies. Quite on the contrary, the Portuguese architectural production found itself constrained by the regime's requirements: monumentality and traditionalism.

In 1948, the 1st National Architectural Congress constituted the milestone and engine of change. That Congress was organized by the government in parallel with an exhibition aimed at glorifying "15 Years of Public Works: 1932-1947" in order to praise the regime's benefits and achievements.²⁵⁷ [Figs. 133, 134] Ironically that congress was precisely where the first dissonant voices begun to be heard in reaction to the regime imposed style.

Two themes were debated: "Architecture in the national context" and "The Portuguese housing problem", for which respectively 26 and 9 theses were presented, mostly from young architects from Lisbon grouped in the ICAT (Arts and Technique Cultural Initiative), and Porto grouped in the ODAM (Modern Architects Organization). The debates were moderated by three modernists form the 20's - Cottinelli Telmo, Pardal Monteiro and Carlos Ramos. Cristino da Silva's surprising silence and total absence from the debates left him as "unofficial regime architect" in the exact opposite position to the spirit the Congress clearly defined. Amongst the second generation architects, Keil do Amaral and Miguel Jacobety from Lisbon and Viana da Lima and Arménio Losa do

²⁵⁶ Pereira, Nuno Teotónio - A Arquitectura de Regime, 1938-1948, 1997, pp. 36-37.

 ²⁵⁷ Ribeiro, Ana Isabel - Arquitectos Portugueses: movimento associativo durante o Estado Novo, 2008, pp. 324-325.



Artur Andrade: Batalha Cinema, Porto, 1945.
 136. Pardal Monteiro: Ritz Hotel, Lisbon, 1952.
 137. Alberto Pessoa, Hernâni Gandra, João Abel Manta: Av. Infante Santo intervention, Lisbon, 1955.
 138. Francisco Keil do Amaral: Metro station, Lisbon, 1955.
 139. Alberto Pessoa, Pedro Cid, Ruy Jervis d'Athoughia: Calouste Gulbenkian Foundation Museum, Lisbon, 1959.
 140. Nuno Teotónio Pereira, Nuno Portas: Sagrado Coração de Jesus Church, Lisbon, 1961.

Porto, together with other ODAM members, were the most active.²⁵⁸ Overall, whilst the older architects managed to show a degree of self-criticism for "giving-in" to the imposed "Portuguese" architecture, the younger generation openly rebelled against any sort of limitations in style.

It is from this moment on, the equivalent of a true turning point, that the official censorship begins to lose strength. It will be for the public organizations benefitting from a relative degree of administrative autonomy, such as the hydro-electric companies or the municipalities, to create the conditions for modernist architecture to return to its path in Portugal, only this time starring the younger generation of architects.²⁵⁹

From the end of the 40's, new perspectives are opened for the younger Portuguese architects, who are finally able to express different modernity tendencies in urban projects, new housing or school buildings. It was an extremely rich and diversified period for Portuguese architecture: Alberto Pessoa, Hernâni Gandra and João Abel Manta – Av. Infante Santo intervention (1955); Artur Andrade – Batalha Cinema (1945); Pardal Monteiro – Ritz Hotel (1952); Francisco Keil do Amaral – Lisbon Subway (1955); Alberto Pessoa, Pedro Cid and Ruy Jervis d'Athoughia – Calouste Gulbenkian Foundation Museum (1959); Nuno Teotónio Pereira and Nuno Portas - Sagrado Coração de Jesus Church (1961), - it corresponds to the adoption period of the "International Style" and "Athens Charter" principles, in a way regaining the initiative and ethos of the first modernist generation from the 20's , but above all without losing sight of tradition and the Portuguese architectural roots. [Figs. 135-140]

²⁵⁸ Acciaiuoli, Margarida - O I Congresso Nacional de Arquitectura, 1982, p. 132.

²⁵⁹ Pereira, Nuno Teotónio - Foi o salazarismo um fascismo? O que diz a arquitectura, 1993, p. 26.

The combination of these factors brought about new forms and especially a new way of thinking and of projecting architecture, one that resumes the value of memory, the notion of city and the value of its users, in a search process for an identity that tends to overcome the "Modernist Myth".²⁶⁰

²⁶⁰ *Ibid*, p. 26.

Third case study: University of Coimbra

The buildings of the Marquis Pombal's reform²⁶¹ and the occupation of several religious colleges after its extinction in 1934,²⁶² solved the problem of the University facilities until the early twentieth century. However, the Reform of the Studies in 1911,²⁶³ a gradual increase in the number of students and growing unsuitability of the University facilities, mainly buildings of the late sixteenth and eighteenth centuries, resulted in the need to carry out the renovation plan for the University City of Coimbra.²⁶⁴

The first step towards this direction was taken by Ângelo da Fonseca in 1933, Professor of Medicine and Director of the University Hospitals, called for the creation of a "modern University City."²⁶⁵ Although the report was exclusively focused on improvement of the Hospital facilities located in former colleges, which also proposed to demolish a few buildings in order to build a new pediatric block, nevertheless, it was the first attempt to reorganize the University spaces that reached the public through the newspaper "O Despertar" in 18 July 1934.²⁶⁶

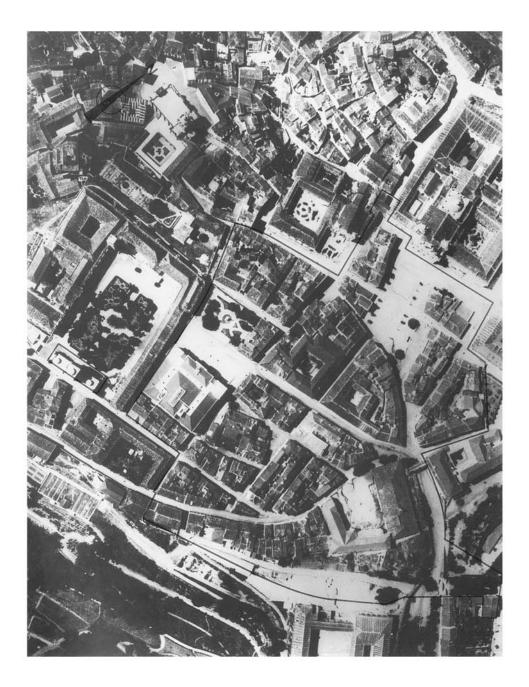
In 1934, Abel Urbano, military engineer and employee of the Municipality of Coimbra, issued a series of articles in which he supported the idea to improve the University spaces

²⁶¹ In 1772, the Pombal's reform for University restructured its educational programme seeking to introduce new fields of knowledge. It also included a profound intervention in scholar spaces. Between 1772 and 1777 several building were constructed: *Museu de História Natural* (Museum of Natural History), *Laboratório Químico* (Chemistry Library), *Imprensa* (Press), began the construction of two astronomical observatories (one of the *Castelo*, never completed, and another of the *Pátio da Universidade*), executed the renovation plan for the *Paço das Escolas* (Palace of Schools) and created the *Jardim Botânico* (Botanical Garden).

 ²⁶² The decree of May 30th 1934, dissolved the religious houses of all male regular orders and nationalized their assets. These buildings were given to profane occupations, mainly public services: hospitals, schools, courts, etc.
 ²⁶³ Lobo, Huertas - *Cidades Universitárias*, 1956, p. 5.

²⁶⁴ Rosmaninho, Nuno - O princípio de uma "revolução urbanística" no Estado Novo: os primeiros programas da cidade universitária de Coimbra (1934-1940), 1996, p. 22.

²⁶⁵ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p. 56.
²⁶⁶ Ibid, pp. 64-65.



141. Aerial view of "Alta" before the University City works, excavations and demolitions, that started in 1942.

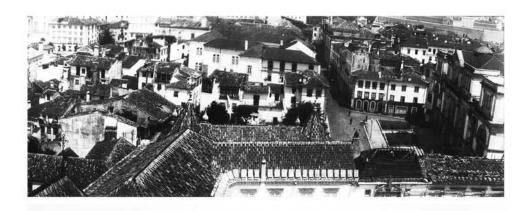
to the "demands of modern academic life and to the new organization of higher education."²⁶⁷ This proposal would imply the correction of the street alignments, regularization of the squares, demolition of several buildings and redistribution of the University facilities, but as structuring criterion – maintaining the University concentrated around the core building *Paço das Escolas* (Palace of Schools). [Fig. 141]

Actually, the idea to carry out a renovation plan for the University City of Coimbra did not appear before the government decision to create the University City in Lisbon, publicized on 11 May 1934. The plan to remodel the University facilities of Coimbra was born during the Senate meeting on 23 May 1934 as a reaction to what was happening in Lisbon. Mário Figueiredo, on behalf of the Faculty of Law, complained that once Coimbra already has a University City, with the concentrated buildings of high architectonic and urbanistic value, the University could be therefore limited to a mere remodeling and "recovery of what already exists"²⁶⁸, instead of building a new one.

The idea of remodeling the University City of Coimbra was developed with the knowledge of the historical and symbolic value of the old core buildings of the University and the qualities of its spatial organization which potentiated the virtues of Coimbra "for meditation and study."²⁶⁹ On the other hand, authoritarian State saw here the possibility of effective separation and control of students and professors, from the desire to indoctrinate and standardize in the political and ideological terms. Therefore, the Estado Novo planned here to "educate the elites" according to their ideology through urban planning, architecture, sculpture and painting.

²⁶⁷ Rosmaninho, Nuno - O princípio de uma "revolução urbanística" no Estado Novo: os primeiros programas da cidade universitária de Coimbra (1934-1940), 1996, p. 44.

 ²⁶⁸ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p. 61.
 ²⁶⁹ Ibid, p. 56.





142. Photograph of the University of Coimbra buildings concentrated around the "Paço das Escolas", before 1942.143. Photograph of the same area around the period of 1950, when the Faculty of Humanities was in its last phase of completion and the remodeling works of the main facade of the General Library had already begun.

In fact, the place for the University has never been questioned. Art historian Nuno Rosmaninho confirms that the documents reveal that neither CAPOCUC²⁷⁰ neither the University nor the politicians made any effort to choose another larger site capable of meeting the future needs of expansion. The obvious lack of space led to the occupation of areas every time more extensive than the ones owned by University, but never challenging the traditional location of *Alta*,²⁷¹ instead having to occupy the residential area and thus causing demolitions, relocations and destruction of urban heritage. Only in 1966, when the criticism had become practically consensual, Silva Dias at the Senate meeting concluded that "the location of the University City in *Alta* was a mistake that cannot be escaped."²⁷² [Figs. 142, 143]

The government accepted the claim of the University of Coimbra in late October 1934, and the Minister of Public Works and Communication Duarte Pacheco established a committee composed by four professors of the University representing different faculties²⁷³ responsible for "writing the program to serve as a basis for the preparation of the general plan of the University City of Coimbra."²⁷⁴ The committee was accompanied by two architects, Raul Lino and Luís Benavente, who were appointed to "study an urbanisation plan around the nucleus of the current University facilities of Coimbra,

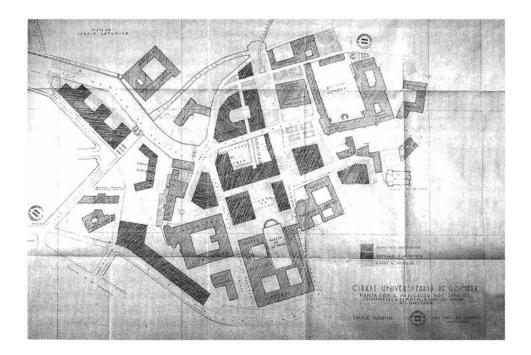
²⁷⁰ *Comissão Administrativa do Plano de Obras da Cidade Universitária de Coimbra* or CAPOCUC (1941-1969): the administrative unit for the University City of Coimbra in charge to organize the programs, to elaborate projects and to administrate and supervise the construction.

²⁷¹ Alta, literally the "high (town)", is the name by which the old city quarter of Coimbra is known, built in a hill, where, by royal decree of João III, the national University was settled in 1537. Since then, Coimbra became known as University City with the university buildings concentrated around the main courtyard of schools - *Paço das Escolas*.

²⁷² Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p. 63.

²⁷³ Luís Wittnich Carrisso (Chairman of the committee and representative of the Faculty of Science), Eugénio de Castro (Faculty of Humanities), Morais Sarmento (Faculty of Medicine), and Mário de Figueiredo (Faculty of Law).

²⁷⁴ Rosmaninho, Nuno - O princípio de uma "revolução urbanística" no Estado Novo: os primeiros programas da cidade universitária de Coimbra (1934-1940), 1996, p. 71.



144. First committee: urban plan of the University City of Coimbra, 1934-1936.

reaching the necessary area to its convenient expansion and the perfect isolation from private buildings."²⁷⁵

The committee took much longer than the three months predicted, due to the complexity of the task and disagreements among the members: the report was completed only in early 1936.²⁷⁶ The final report of the first committee showed the preoccupation with academic, social and aesthetic needs of the academic community, and was especially concerned with hygiene needs and circulation problem both for the pedestrians and motor vehicles. It was not forgotten to highlight the ideological importance of the University City where well-arranged and qualified space would contribute to more effective intellectual, physical and moral formation of a young man. The committee proposed, in aesthetic terms, a balance between the old and modern, from the urban point of view, rehabilitation of old buildings and public spaces and demolition of some buildings in order to improve the access network. [Fig. 144]

The need to maintain the financial reasonableness of the project and the obvious artistic quality of some University buildings, forced the committee to propose the reuse of more noble architecture: *Paço das Escolas*, *Colégio dos Lóios*, *Museu de História Natural*, *Laboratório Químico*, *Colégio de S.Boaventura*, *Casa dos Melos* and *Casa dos Contadores*, *Colégio de S. Paulo Eremita*, *Colégio de S. Bento*, *Colégio da Trindade* and *Colégio dos Grilos*. The committee also proposed a vast demolition of residential blocks without a high artistic value. The alignments of the new buildings, proposed for the demolished spaces, tried to respect the irregularity of preexisted urban frame. It was permanence of

²⁷⁵ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p. 66.
²⁷⁶ Ibid, pp. 66-67.

the "old structure" of the streets and some buildings which caused a "hybrid project, which would destroy the old urban grid without seeking to create the new one."²⁷⁷

In December 1st 1937, the statement of Oliveira Salazar, published in the second volume of "*Discursos e Notas Políticas*", became a foundation for the plan of the University City of Coimbra from a political point of view, driven by desire to improve the political and ideological dimension of Coimbra in the formation of "future elites".

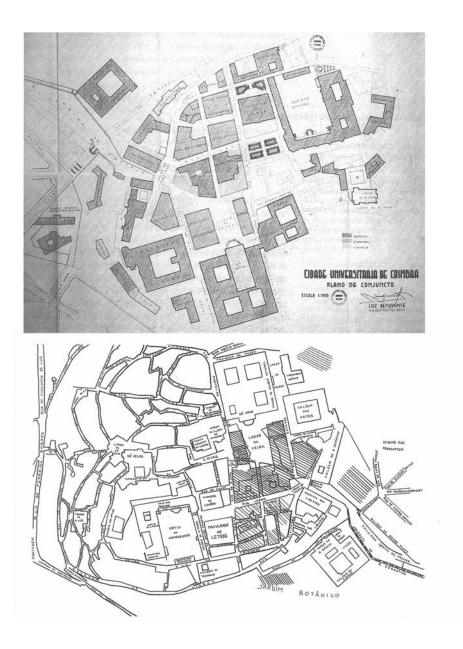
"It is not that I am seduced or moved, in spirit of stingy imitation, by what is being done in other countries. But *Alta* is on its own, by work of our ancestors, a great university city, needing only, to emphasize it and give it value, so that its fundamental buildings were liberated from incrusted, badly-made and unworthy constructions, and supplement it with proper facilities meeting the demands of new studies. To isolate the Sacred Hill, only activate it for studies in this sweet and calm atmosphere of Coimbra. [...] it is undoubtedly expensive construction but feasible and useful, which would give the Coimbra an exceptional place among all universities in the world."²⁷⁸

Lack of results so far approved by the Minister, the death of the chairman of the committee Luís Carrisso, resignation of Eugénio de Castro in 1936 and also of Duarte Pacheco as a Minister of Public Works and Communication from 1936 to 1938, led to the interruption of the works. In 1938, by initiative of the rector João Duarte de Oliveira, the University took to renew its request to the government for the reorganization of the former committee, so that the start of construction would coincide with the "double centennial of the foundation and restoration of Portugal"²⁷⁹ in 1940s. However, the second committee composed exclusively of the university professors was appointed only

²⁷⁷ *Ibid*, pp. 68-69.

²⁷⁸ Bandeira, José Ramos - Cidades Universitárias, 1943, pp. 98-99.

²⁷⁹ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p. 72.



145. Second committee: urban plan of the University City of Coimbra, 1939-1940.
146. Duarte Pacheco: corrections made for the urban plan of the University City of Coimbra by Minister himself, February 1940.

in the following year.²⁸⁰ The absence of an architect was remedied by Luís Benavente's more or less informal work.

In the early 1940s, the report of the second committee was delivered to the Minister Duarte Pacheco and he, not entirely satisfied with the solution, made a trip to Coimbra and reviewed the program, finishing it in three days.²⁸¹ The visit of Duarte Pacheco interfered in the urbanistic expression of the new buildings for the University. It happened during the visit when he envisioned to put the Faculty of Humanities and the General Library in front of each other and also, instead of various buildings, including the *Governo Civil* and *Museu de Antropologia*, to incorporate them into a one single block allocated to the Faculty of Medicine.²⁸² These architectonic masses of complex programs and high volumes, was the first and apparent detachment from the primitive urban grid, with a clear intention of creating a new urban structure and not simulating the preexisting one. [Figs. 145, 146]

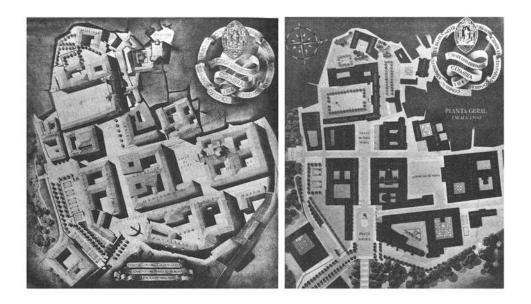
The final plan for the University City of Coimbra was developed by the last committee formed in 1941. The Decree-law No. 31 576 of 15 October 1941, established a new administrative unit for the works of the University City of Coimbra (CAPOCUC) responsible for "organization of the final programs according to the studies made by previous committees of 1934 and 1939, elaboration of the project design and administration and supervision of the construction."²⁸³ The CAPOCUC committee was formed by Maximino Correia, the President of CAPOCUC and rector of the University of

²⁸⁰ Morais Sarmento (the chairman of the committee, representative of the Faculty of Medicine and the only member remained from the first committee), José Alberto dos Reis (Faculty of Law), Anselmo Ferraz de Carvalho (Faculty of Science) and Aristides de Amorim Girão (Faculty of Humanities)

²⁸¹ Rosmaninho, Nuno - O princípio de uma "revolução urbanística" no Estado Novo: os primeiros programas da cidade universitária de Coimbra (1934-1940), 1996, p. 73.

²⁸² *Ibid*, p. 108.

²⁸³ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p. 75.



147. Cottinelli Telmo: first draft of the urban plan for Coimbra, "Ensaio de Conjunto de massa conciliando os vários dados do problema", 1942.
148. Cottinelli Telmo: fifth drawing of the urban plan for Coimbra, "Cidade Universitária de Coimbra", 1942.

Coimbra; Cottinelli Telmo, the chief-architect, who died in 1948 and was replaced by Luís Cristino da Silva; Manuel Duarte Moreira de Sá e Mello, the director-engineer; Armando Stichini Vilela, the secretary-accountant; and Baltazar de Castro, the architect, expert in National Buildings and Monuments.

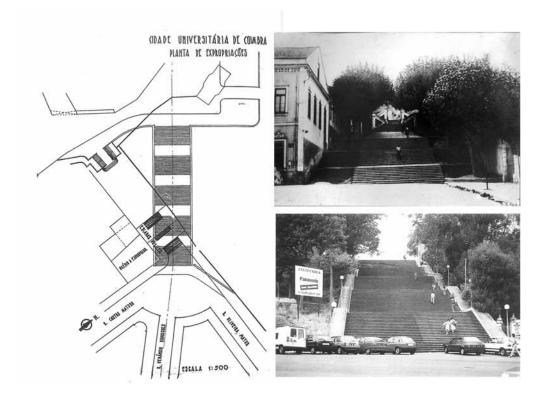
However, the actual planning of the works in Coimbra started only in 1941, after the Portuguese World Exhibition which brought together most of the country's architects. Cottinelli Telmo was a chief-architect of the exhibition.²⁸⁴ This experience helped him to embrace the new aesthetics and spatial concepts favored by totalitarian regimes during the 1930s, after he moved to the new committee for the works of the University in Coimbra, Cottinelli could now employ his formal vocabulary in a permanent work. In Coimbra, he would like to create a system of orthogonal axes, wide avenues, large squares, massive volumes and above all, a notable stylistic uniformity.

In 1942, the first draft of the urban plan for the University of Coimbra was presented to the Minister Duarte Pacheco. It was finally a project that met his dreams. If the first proposal was to "reshape" the university facilities, Cottinelli Telmo's project showed an evident desire to "create a new space".

Since the first plan of 1942, where the chief-architect integrated the "givens of the problem"²⁸⁵ until his fifth drawing of *Cidade Universitária de Coimbra* dated 1943, Cottinelli Telmo, in collaboration with the CAPOCUC and the close participation of the Minister of Public Works and Communication Duarte Pacheco, released the final proposal.²⁸⁶ [Figs. 147, 148] The plan of Cottinelli did not only define the urban structure, it also gave the directions to the building design. The employment of a grand new

²⁸⁴ Acciaiuoli, Margarida - A Exposição do Mundo Português, 1982, p. 55.

 ²⁸⁵ Ensaio de Conjunto de Massas, conciliando os vários dados do problema, the title of the first master plan for the University City of Coimbra, dated 1942 and designed by the chief-architect of CAPOCUC, Cottinelli Telmo.
 ²⁸⁶ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p. 76.



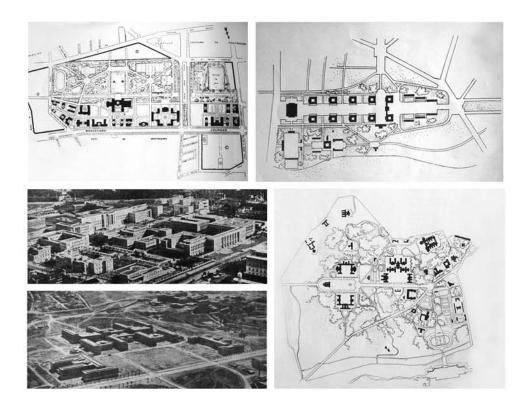
149. Duarte Pacheco, Cottinelli Telmo: project for the Monumental stairway, 1944/1949.
150. Photograph of the High School's stairway, "Escadas do Liceu", before 1944.
151. Photograph of the Monumental stairway, "Escadaria Monumental", after 1949.

classical axis, perspectives of pure volumes, plazas and squares punctuated by sculptures: a vocabulary used by most of the totalitarian states. Similarly to Italian case, "antiquarian history" was respected only if it could be politicized and instrumentalized. The key monuments, *Paço das Escolas* and *Sé Nova*, were incorporated into the urban plan, but a big part of historical pattern was sacrificed to the new, fully monumental proposal.

The proof of close collaboration between the chief-architect Cottinelli Telmo and the Minister of Public Works and Communication Duarte Pacheco is evident in the decision to create the *Escadas Monumentais* (Monumental Stairway), suggested by Minister himself. The importance of the staircase in the urbanistic solution is perhaps most directly reflected by Cottinelli's words in 1944: "The central axis that forms entire University City, starts at the *Porta Férrea*, goes through the current street of *Cândido dos Reis* (*Rua Larga*), passes through the *Praça D.Dinis* (with the sculpture of Portuguese King) and reaches the monumental staircase. In early master plan, this staircase was not foreseen: it was the deceased Minister of Public Works and Communication, engineer Duarte Pacheco, who suggested it. With its construction, the whole set earns dignity because it emphasizes the compositional axis and a staircase is always an element of monumentality"²⁸⁷ thus intensifying most valuable aesthetic principles of the regime: the symmetry axis, perspective of pure volumes and monumentality. [Figs. 149-151] The rectangular shape of the *Praça D.Dinis* was finally resolved through fifth solution.

The project for the University City of Coimbra was launched in 1934 and gained its final form under the direction of Cottinelli Telmo in 1943. In almost ten years, the number of students at university increased significantly, every time and with each committee, it led to more complex programs requiring more facilities. The lack of space available and

²⁸⁷ Rosmaninho, Nuno - A Cidade Universitária de Coimbra no Estado Novo, 1998, p. 74.



152. Bechmann, Forestier, M. Azema: master plan of the University of Paris, 1923.
153. Sverre Pedersen: master plan of the University of Oslo, 1926.
154. Marcello Piacentini: master plan of the University of Rome, 1927.
155, 156. Lopez Otero: master plan of the University of Madrid, 1930.

persistence to keep the traditional location of University in *Alta*, inevitably resulted in the *ultra-concentrated* campus with massive volumes.

The creation of the final committee coincided with the influences of *monumental formalism* that came from fascist oriented countries like Italy and Germany, and was successfully incorporated into the Portuguese "official style". In early 1942, CAPOCUC ordered a vast bibliography of books concerning German and Italian architecture, and also sent the request to Portuguese embassies in Rome, Vichy, Berlin and Madrid asking for the master plans of their University Cities.²⁸⁸ [Figs. 152-156] The German influence came after the Portuguese World Exhibition (1940) and the exposition of "Modern German Architecture" presented by Albert Speer in Lisbon (1941).²⁸⁹ The similarities in architectonic and urbanistic language between the University of Coimbra and the architecture of Fascist Italy, can be traced back to the beginning of the construction of *Instituto Superior Técnico* in Lisbon (1927-1941), and associated with architect Pardal Monteiro and director at the time of the institution Duarte Pacheco studies in Italy.²⁹⁰ Since becoming Minister of Public Works and Communication in 1932, Duarte Pacheco, admirer and expert of Mussolini's ventures, also politician and technocrat, has supported the ambitious projects designed with grandeur.

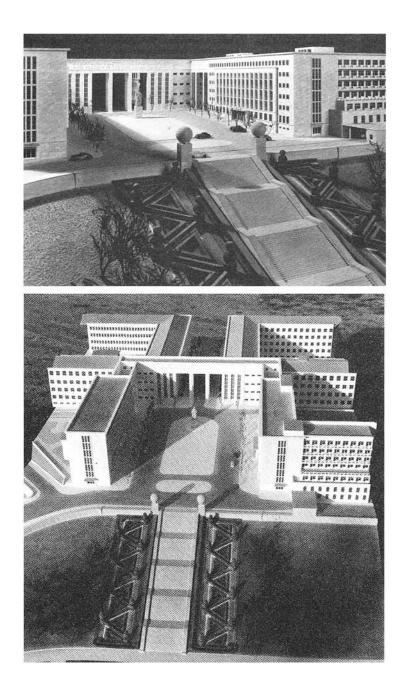
The more profound impressions for the University City of Coimbra were, however, collected in Italy during the visit of the chief-architect Cottinelli Telmo and the committee members in the fall of 1946.²⁹¹ In the report, Maximino Correia, President of CAPOCUC, expressed his appreciation for the architecture of the University City of

²⁸⁸ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p. 82.

²⁸⁹ Pedreirinho, José Manuel - A arquitectura portuguesa do Fascismo ao Estado Novo (2): influências dos regimes alemão, italiano e espanhol, 1982, p. 25.

²⁹⁰ **Gonçalves, José Fernando de Castro** - Ser ou não ser moderno: considerações sobre a arquitectura modernista portuguesa, 2002, p. 101.

²⁹¹ Grande, Nuno – 3 pólos universitários, 3 "faces" da arquitectura portuguesa, 2010, p. 59.



157, 158. Luís Cristino da Silva: model of the University City of Coimbra, version with proposed monumental portico and the University Hospital, 1949-1966.

Rome: "beauty, grandeur and majesty of architectural complexes with predominantly large porticos, high pillars and large arcades, modern and sober lines, the wide avenues, and the buildings flanked by sculptural groups of classical mythology."²⁹² During his visit to Italy, Cottinelli Telmo also approved several ideas, particularly architectonic ones: the necessity to use "good materials", the balance between ancient and modern, and the refusal of "archeological reproduction".²⁹³

Despite the unexpected death of two most important figures, Duarte Pacheco in 1943 and Cottinelli Telmo in 1948, the works of the University City of Coimbra continued with the same programmatic and aesthetic guidelines under the direction of Luís Cristino da Silva. When Cristino took the position of chief-architect of CAPOCUC in 1949, the master plan for the University City of Coimbra was already defined, so the architect remained focused on building design and stylistic uniformity on the architectonic level.

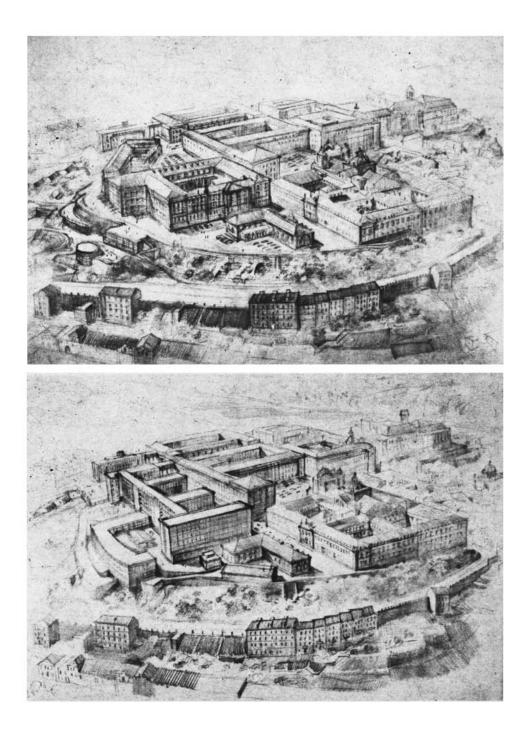
Luís Cristino da Silva served as cicerone to Albert Speer in Lisbon (1941) and was fascinated by Nazi architecture.²⁹⁴ In Coimbra he was pleased to continue the work in monumental spirit. During his term of office, from 1949 to 1966, he embodied the desire to mark the entry to the University City of Coimbra with the portico of monumental scale. It would be built with two orders of pillars seventeen meters high, supporting a large closed gallery which interconnects the two faculties of medicine and science.²⁹⁵ [Figs. 157, 158] In addition, during this phase, the University Hospital was designed to close the third side of *Praça D.Dinis*, requiring the demolition of two Colleges of the sixteenth century, *S.Jerónimo* and *Artes*, but the Minister of Public Works and

²⁹² **Rosmaninho, Nuno** - *O poder da arte: o estado novo e a cidade universitária de Coimbra*, 2006, p. 85.

²⁹³ *Ibid*, pp. 85-86.

²⁹⁴ **Pereira, Nuno Teotónio** - *A Arquitectura de Regime, 1938-1948, 1997, p. 35.*

²⁹⁵ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p. 87.



159. Walter Distel: proposal for the University Hospital, 1960-1967.

Communication, Eduardo Arantes de Oliveira, prevented the proposed demolitions.²⁹⁶ [Fig. 159] Cristino da Silva's proposals for the University City of Coimbra as the *Escola Superior de Farmácia* (School of Pharmacy), the stadium and buildings for the *Associação Académica* (Student Association) or below mentioned entrance arch have never got beyond the design stage.

After Luís Cristino da Silva resigned from the position of the chief-architect of CAPOCUC due to his age limit on 21 May 1966, the University City of Coimbra was in its last phase of completion, missing only the buildings of Mathematics, Chemistry and Physics, opened in 1969 and 1975.²⁹⁷ Cristino da Silva's departure opened the way for systematic criticism for the University City of Coimbra. The increasing awareness of the destruction caused by this operation made the criticism to become practically consensual.

João Filipe Vaz Martins was the last chief-architect for the works of the University City of Coimbra between the period of 1967 and 1975, when the last building was opened. His involvement into the works was limited by supervision and completion of the construction. The general attitude towards the works of the University of Coimbra, in contrast what happened until the 1960s, was critical. Thereof, Filipe Vaz Martins sought to complete the works in progress without the further destruction of the remaining urban heritage.

The decision to transfer the University Hospitals to the periphery of Coimbra was taken in 1967, resulted in the need to re-study the arrangement of *Praça D.Dinis* without the Hospital building. The arrangement of *Praça D.Dinis* was one of the most important tasks undertaken by João Filipe Vaz Martins during his term of office.²⁹⁸

²⁹⁶ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, pp. 87, 188.

²⁹⁷ *Ibid*, pp. 90-91.

²⁹⁸ *Ibid*, pp. 90-92.



160, 161. Alberto José Pessoa: Archive of the University of Coimbra, 1943/1948.

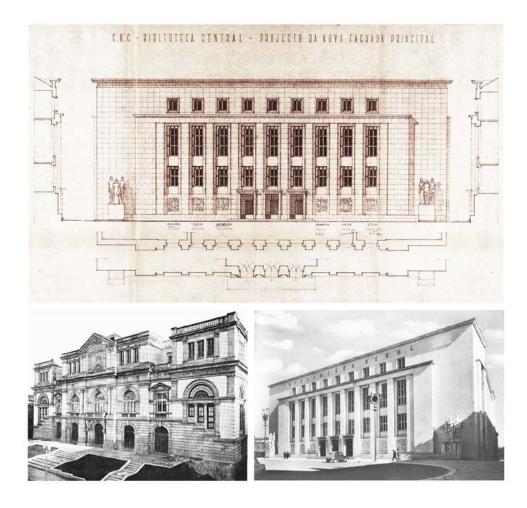
The Decree-law No. 49 169, published in the "*Diário do Governo*" on 5th August 1969, dismissed the committee of the works of the University City of Coimbra (CAPUCUC) and its services were integrated in a new institution: *Direcção-Geral das Construções Escolares*. Thus, the University City of Coimbra lost its administrative autonomy and entered into the phase of *liquidation*.²⁹⁹

The construction of the University City of Coimbra is closely related with the evolution of the *Estado Novo* since the peak of the nationalistic movement in the late 1930s until its fall on 25 April 1974. It began as an ideal "national project" in 1937, according to the official statement of Oliveira Salazar, with the ambition to form the elites under the aesthetics of monumental classicism. However, in the last two buildings of the plan, the Department of Mathematics and the Faculty of Sciences, the international influences are evident.

The building for the Archive of University, designed by the architect Alberto José Pessoa, was the first to be built and opened to the public on 16 October 1948. The secondary location of the building allowed stepping back from the imposed monumental classicism and creating a gently classical building. [Figs. 160, 161]

The General Library was an exceptional building in the overall plan for the University City of Coimbra, since it was a redesign of an existing building at the time, the Faculty of Humanities. The chief-architect Cottinelli Telmo, considered the Faculty of Humanities, designed by Silva Pinto in neoclassical style between the 1912 and 1932, to be "unanimously bad" and proposed to redesign it entirely, not because of the new program

²⁹⁹ Ibid, p. 92.



162, 164. Alberto José Pessoa: General Library of the University of Coimbra, 1949/1951.
163. Silva Pinto: Faculty of Humanities before the transformation into the General Library of the University of Coimbra, 1912/1932. that would suffer minor transformations, but exclusively for aesthetic reasons.³⁰⁰ [Figs. 162-164]

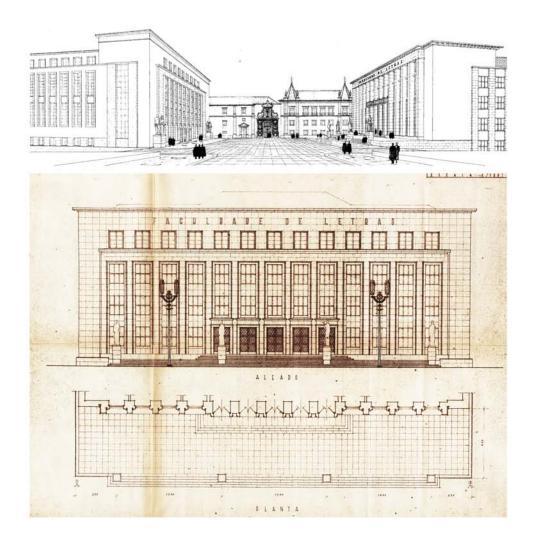
Cottinelli Telmo also envisioned a new monumental square, *Praça da Porta Férrea*, closed by the oldest university building *Paço das Escolas* and two new buildings - the Faculty of Humanities and the General Library. Thus, he appointed young architect Alberto José Pessoa to study and design the composition of the facades in the style of monumental classicism. The facades were criticized by the Superior Council of Public Works who demanded more "Portuguese" appearance.³⁰¹ The debate between the Superior Council of Public Works and the chief-architect, who defended the monumentality with combined modern and classical spirit, is an example of the complexity of the process to find the "right expression" for the architecture of the New State, especially for such important "national projects" as the Coimbra's case. [Fig. 165]

The General Library and the Faculty of Humanities, both designed by Alberto José Pessoa, under the strict supervision of Cottinelli Telmo, were opened to public in October 1951. [Fig. 162, 166]

The Faculty of Medicine, opened on 29 Mach 1956, was the first building design supervised by the chief-architect Cristino da Silva. The design for the building was developed by architect Lucínio Guia da Cruz.

Flat roofs are associated with modern methods of construction and have an essential aesthetic significance. However, most of the buildings designed for the University City of Coimbra had traditional hip-roofs and only the Department of Mathematics, opened on 17 April 1969, was the first and the last building in *Alta* to which the concept of roof-

³⁰⁰ *Ibid*, p. 126.
³⁰¹ *Ibid*, p. 234.



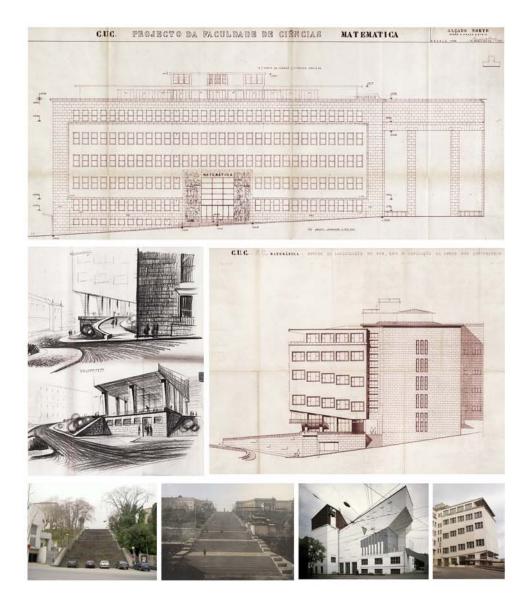
165. Cottinelli Telmo, Alberto José Pessoa: new monumental square, "Praça da Porta Férrea", 1942/1951.
166. Alberto José Pessoa: Faculty of Humanities of the University of Coimbra, 1945/1951.

terrace was applied. [Figs. 167-169] The Department was a result of various collaborations, but the final design belongs to the architect Lucínio Guia da Cruz. Despite the fact that the main façade remains symmetric and static, in the south wing of the building one might even consider the influence of the constructivist architecture. The architect incorporated the Konstantin Melnikov's "Rusakov Worker's Club" (1928) dynamic aspects in an entirely original way. [Figs. 172, 173]

The effect of mass and static solidity has disappeared only in the last building designed by the same architect, Lucínio Guia da Cruz. The Faculty of Sciences experienced a long process of construction, which started in 1966: the building was opened to the public in 1975. The building includes two departments, Physics and Chemistry. The architect detached the central part of the volumes from the ground with the support of *pilotis*, thus liberating the space for circulation under the construction. The volume was no longer the closed box, one of the key aesthetic principles favored by modernists.

The New State idealized the idea of closed University City or campus with the concentrated university facilities, because it facilitated the isolation of the academic community from "harmful temptations" and also facilitated to educate them not only in the academic terms but also through the urbanistic and architectonic aesthetics. However, the phenomena of aesthetic delay was evident in the architecture of monumental classicism after all buildings were finally completed.

The urban plan for the University City of Coimbra is one of the most interesting, polemic and controversial works of the New State, where both the aesthetic ideologies and its contradictions were projected in architectural form. First of all, the City of Coimbra was important because of its history and tradition. Similarly to what happened in other cities renewed under the totalitarian governments, the New State saw here the possibility by manipulating the historical artifacts to create their own monumental classicism to prove



167,168,169. Lucínio Guia da Cruz: Department of Mathematics of the University of Coimbra, 1964/1969.
170. Duarte Pacheco, Cottinelli Telmo: Monumental starirway, 1944/1949.
171. Potemkin Stairs, Odessa, 1837/1841.
172. Konstantin Melnikov: Rusakov Workers club, Moscow, 1927/1929.
173. Lucínio Guia da Cruz: south wing of the Department of Mathematics, 1964/1969.

the "comparative worth of the present against the stony testimonials of past glories."³⁰² Therefore, the plan of Cottinelli Telmo had a strong idea of urban scenography that meant to highlight a certain perception of the patrimony, for instance, respecting *Paço das Escolas* and *Sé Nova*, but at the same time being indifferent to the historic pattern of 16-18th centuries. Before the intervention, *Alta* was a multifunctional space, which evolved during the time to satisfy the daily and occasional needs of the population; afterwards it became monofunctional "sacred space" dedicated to the University buildings.

The University campus consists of five rectangular modules: the Archive and General Library, the Faculty of Humanities, the Faculty of Medicine, the Faculty of Sciences (which includes the Departments of Physics and Chemistry) and the Department of Mathematics. From the urban point of view, the irregular fabric of Alta was exchanged to the fully monumental proposal with austerity of imperial boulevards and avenues, vast perspectives of high volumes and endless monumental staircase, which reminds the canonical scene from the Sergei Eisenstein's silent film the "Battleship of Potemkin" of 1925. [Figs. 170, 171]

³⁰² Kostof, Spiro - A history of architecture: settings and rituals, 1995, p. 717.

Fourth case study: Students' Association of Coimbra

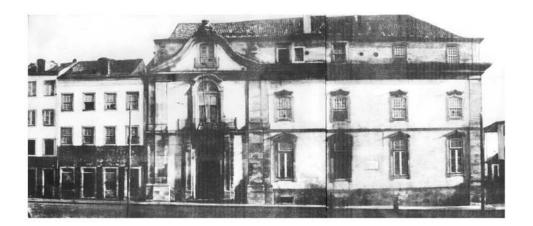
The Associação Académica³⁰³ is located at a lower elevation than the rest of the University City of Coimbra. However, the site is well bounded by the eastern slope of *Alta*, Padre António Vieira Street, Sá da Bandeira Avenue and Oliveira Matos Street. The distance in time and space made it possible that within the same construction work, the University City built in authoritarian manner by *Estado Novo*, with austere and monumental buildings, imported from German and Italian models of the time, was able to "escape" the "architecture of power" and come closer to the *International Style*, and, ideologically, to functionalism. *Associação Académica* is a work in which Alberto José Pessoa and João Abel Manta consummated a cut with the architecture of the regime.

The attention given to *Associação Académica* is closely related to the ideas that emerged in the twentieth century as a new model of design, according to which modern universities should consist of a series of structures that harmoniously and fully articulate the life of the whole university population. Not limited to simple school buildings, they are supplemented with a number of other infrastructures such as accommodations, libraries, sport zones, theaters, cafeterias, bars, etc.³⁰⁴ *Estado Novo* also recognized here the chance to train the students physically and morally, and not just intellectually, through the use of the new facilities. As stated by Diogo Pacheco Amorim, Professor at the Mathematics Faculty in 1951: "training of the University's students must make them a homogeneous enough whole so that they could run the nation."³⁰⁵

³⁰³ "Associação Académica" or Students' Association is a students' organization of the University of Coimbra, and also it is here referred to a building itself, dedicated to social, cultural and administrative activities of the students' community.

³⁰⁴ Tainha, Manuel - *Planificação das novas Cidades Universitárias* (3), 1956, pp. 14-27.

³⁰⁵ **Rosmaninho, Nuno** - *O poder da arte: o estado novo e a cidade universitária de Coimbra*, 2006, p. 57.



174. College of São Paulo Eremita in Rua Larga where during the period of 1913-1949 was functioning the Students' Association of Coimbra. This is the context in which the first and second commissions decided to provide proper facilities for students: *Casa dos Estudantes* (Students' Home) or *Associação Académica*, a good sports field and student residences.³⁰⁶ In general, they wanted to create a new structure where the whole range of extracurricular activities could take place, which was very important for the student's development outside of the classrooms.

In spite of this ideological concept, the emergence of these ideas is also preceded by events that resulted from the growth of the student population and the lack of space to harbor all academic activity, both cultural and sports related.

Ever since 1913, *Associação Académica* was located on the ground floor of College of São Paulo Eremita in Rua Larga. [Fig. 174] The facilities were very limited when it came to harboring all academic activity, which also included the autonomous cultural bodies: *Sociedade Filantrópico-Académica*, *Orfeão Académico*, *Tuna Académica*, and *Teatro dos Estudantes da Universidade*.³⁰⁷ The first floor had already been assigned to Associação Académica, but the delivery was late in coming. All of which, led the students to occupy the remainder of the building on 25 November 1920, which came to be known as "Tomada da Bastilha" (literally, "taking of the Bastille").³⁰⁸ Therefore, the College came to be known as the "Bastilha" thenceforth.

In the first and second commissions for the construction work, the College of São Paulo Eremita was scheduled to keep its role for House of the Students because "the location of the building is excellent",³⁰⁹ near *Largo do Castelo* (Castle Square), the center of the

³⁰⁶ Rosmaninho, Nuno - O princípio de uma "revolução urbanística" no Estado Novo: os primeiros programas da cidade universitária de Coimbra (1934-1940), 1996, pp. 223-227, 292-295.

³⁰⁷ *Ibid*, p. 224.

³⁰⁸ **Livraria Almedina** - A velha Alta...desaparecida: album comemorativo das bodas de prata da Associação dos Antigos Estudantes de Coimbra, 1984, pp. 28-29.

³⁰⁹ **Rosmaninho, Nuno** - O princípio de uma "revolução urbanística" no Estado Novo: os primeiros programas da cidade universitária de Coimbra (1934-1940), 1996, p. 293.

University City. And the building would only "have to be enlarged and improved."³¹⁰ However, as Minister of Public Works Duarte Pacheco was not entirely satisfied with the second commission's report, he made a trip to Coimbra on 25 February 1940, and suggested that "while the Faculty of Medicine requires great structures, it would be advisable to have just one building of great architectural mass instead of several buildings around *Largo da Feira* (Market Square), including the Civil Government building and the Anthropology Museum. *Associação Académica* and other academic institutions can be installed in a part of the great building of Medicine, given that the enlargement of the current building of *Associação Académica* would turn out to be very costly."³¹¹

From then on, Cottinelli Telmo's final proposals in 1943 designated the Civil Government building and those that housed Anthropology and *Associação Académica* to remorseless demolition because "it will not destroy anything good from an architectural point of view and least of all from other points of view".³¹² In Estado Novo's opinion, the buildings did not provide minimum standards of hygiene and comfort, so they had no artistic value.

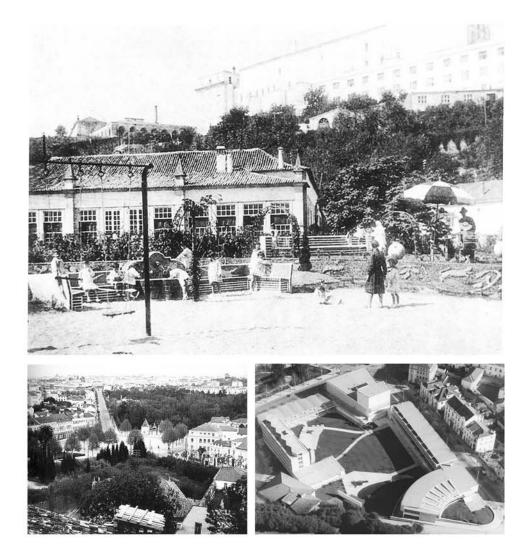
Due to the demolition of the old *Alta* under the plan of the University City of Coimbra, the Colleges of S. Boaventura and S. Paulo Eremita were considered to be demolished in September 1949.³¹³ *Associação Académica* was moved to the College of *Grilos* upon the promise to build soon a capacious enough building to house all academic institutions.

³¹⁰ *Ibid*, p. 293.

³¹¹ **Benedita, Sílvia Cláudia Rodrigues** - *Expressão: fascista?* O percurso da Cidade Universitária de Coimbra como expressão de uma arte política, 1999, pp. 249-250.

³¹² Ibid, p. 257.

³¹³ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, pp. 139, 142.



175, 176. "Ninho dos Pequenitos" before the construction of the Students' Association of Coimbra, 1957.177. "Ninho dos Pequenitos" after the construction of the Students' Association of Coimbra, 1962.

The move happened in August and September 1949.³¹⁴ *Associação Académica* stayed on Ilha Street until the new student facilities in *Praça da República* were opened in 1962.

The academic facilities were incorporated into the plan for the University City of Coimbra from the beginning, but the intention to materialize them comes up long after the death of the Minister of Public Works Duarte Pacheco (in 1943) and of the architect in charge of the design of the University City Cottinelli Telmo (in 1948), who did not plan to build a new house for the students.

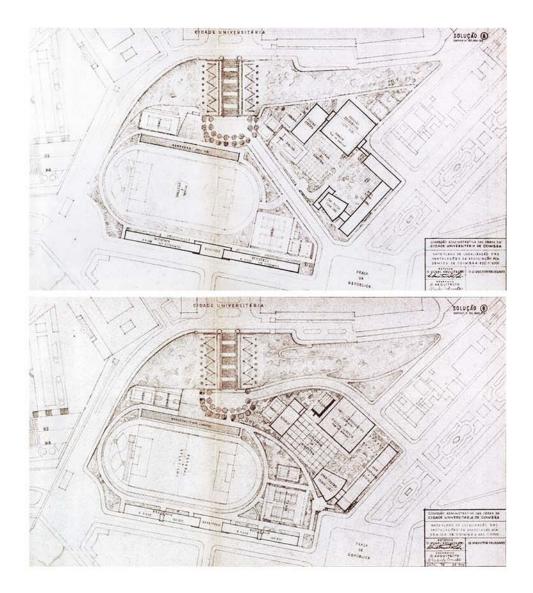
In November 1947, rector Maximino Correia, President of CAPOCUC, again asked *Associação Académica* to give their say on the problem of the headquarters and the stadium. *Associação Académica* put forth three options for the site: *Ninho dos Pequenitos*, *Ínsua dos Bentos* and *Santa Cruz* park, the latter being the students' first choice.³¹⁵

Finally, the idea of building the facilities of *Associação Académica* in *Ninho dos Pequenitos* came forward. The possibility of building the academic facilities in *Ninho dos Pequenitos* began to impose itself in 1951, with a proposal by Doctor Bissaya Barreto to switch the grounds where *Instituto Maternal* (Maternal Institute) is currently located, which at the time belonged to the Ministry of Public Works, for the grounds where *Ninho dos Pequenitos dos Pequenitos* was settled at the time.³¹⁶ The site of the *Ninho dos Pequenitos* at the time belonged to the Child Aid services, combined within the institution of the "Protecção à Grávida e Defesa da Criança"(Protection of Pregnant Women and Children). At its most developed phase, *Ninho dos Pequenitos* consisted of an extensive garden with a swimming pool, swings, a fountain, benches, a lawn and buildings for dormitories, cafeteria,

³¹⁴ Ibid, p. 119.

³¹⁵ **Correia, Maximino** - *Ao serviço da Universidade de Coimbra:* 1939-1960, 1963, pp. 38-40.

³¹⁶ Mendes, Rui Manuel Vaz - Instalações académicas de Coimbra, 2004, p. 45.



178. Luís Cristino da Silva: preliminary plan for the Students' Association of Coimbra, solution A, 1954.179. Luís Cristino da Silva: preliminary plan for the Students' Association of Coimbra, solution B, 1954.

classrooms, etc.³¹⁷ [Figs. 175-177] José Frederico do Casal Ribeiro, then Minister of Public Works, approved the proposal of Doctor Bissaya Barreto, and the location was sold under the deed of sale to CAPOCUC on April 11 1955.³¹⁸

In 1954, the students, acting through *Mocidade Portuguesa*, the Portuguese Youth, asserted the urgency to build new student accommodations, a new *Associação Académica* and a University Stadium (because the *Santa Cruz* field was no longer enough), the latter because of the projects for new facilities being implemented in Porto and Lisbon.³¹⁹

Shortly afterwards, Eduardo de Arantes e Oliveira, Minister of Public Works, visits the College of Grilos (from which *Associação Académica* had been running since 1949). Within a week after his visit, the Minister requests a plan for the construction of new headquarters for the students.³²⁰

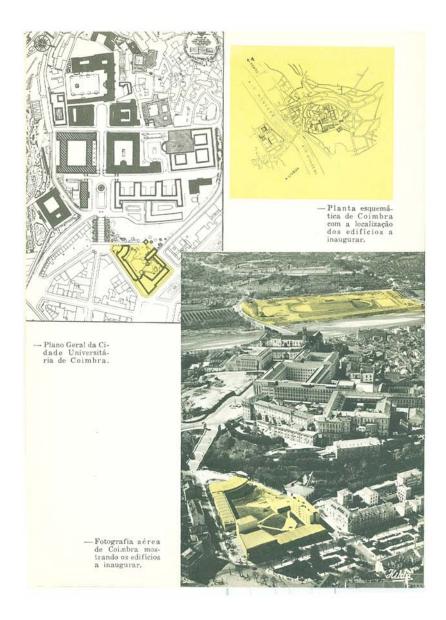
In June 1954, Luís Cristino da Silva, the architect in charge of the construction works of the University City of Coimbra, put those aspirations to paper in his "Ante-Plano de Localização das Instalações da Associação Académica de Coimbra", the Preliminary Plan for Placement of Coimbra's Academic Association Facilities. [Figs. 178, 179] The architect envisioned a grand scenery: a stadium, several sports fields, two residences (five stories high, housing 260 students), and a cafeteria in place of the city blocks delimited by Casto Matoso and Alexandre Herculano streets. The sports gymnasium, two swimming pools, two sports fields, a theater and the headquarters of *Associação Académica* would be

³¹⁷ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p.149.

³¹⁸ *Ibid*, p.149.

³¹⁹ **Benedita, Sílvia Cláudia Rodrigues** - *Expressão: fascista?* O percurso da Cidade Universitária de Coimbra como expressão de uma arte política, 1999, p. 303.

³²⁰ Mendes, Rui Manuel Vaz - Instalações académicas de Coimbra, 2004, p. 46.



180. Alberto José Pessoa, João Abel Manta: University stadium and sport facilities in the left margin of Mondego, administrative and cultural buildings at Ninho dos Pequenitos.

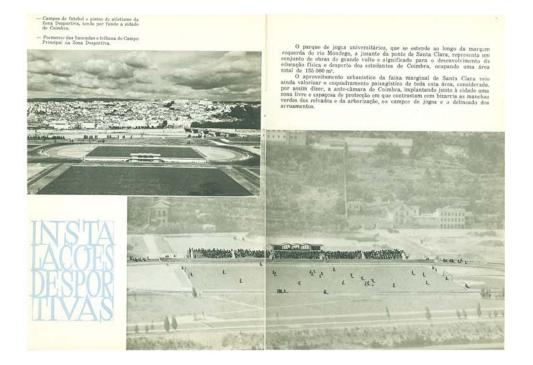
seen instead of *Ninho dos Pequenitos*.³²¹ It was an elaborate plan meant to solve housing, administrative, cultural and sports-related issues.

The project had the same monolithic language and the same goal as the previous organization of *Alta*³²² as a space with a single function, by use of a great structure that promoted the *ultra-concentration* of the university, and offering no possibility of dissolution in a scant enclosure. However, thirteen years after the launch of the University City, Cristino da Silva's proposal showed a utopian and politically unacceptable character. Eduardo de Arantes e Oliveira, who was Minister of Public Works at the time, flatly rejected the planned demolition of the Sousa Pinto neighborhood and the city blocks bounded by Castro Matoso and Alexandre Herculano streets, finding it impossible to consider "mass demolitions entailing overspending, expropriation issues and rehousing problems".³²³

Resistance of the Minister of Public Works resulted in moving part of the plan to the left shore of the Mondego River in Santa Clara. The plan was split up: the University stadium and student residences (which ultimately were not built) were planned for the left margin of Mondego while the cultural and administrative projects were to stay at *Ninho dos Pequenitos*. [Figs. 180, 181]

Cristino da Silva, as chief architect of CAPOCUC, invites at that time his assistant from the Faculty of Fine Arts in Lisbon, Alberto José Pessoa, to develop the plan for the new facilities of *Associação Académica*, where Cristino da Silva worked on the program, which

 ³²¹ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, pp. 88-89.
 ³²² Referring to the fully monumental proposal by Cottinelli Telmo for the University City of Coimbra, which at the time of 1954 was under construction; the Monumental staircase was finished by 1948, the University Archive opened to public in the same year, the Faculty of Humanities and the General Library were officially inaugurated in 1951, and the foundation for the Faculty of Medicine was laid in 1951.
 ³²³ Mendes, Rui Manuel Vaz - Instalações académicas de Coimbra, 2004, p. 45.



181. Alberto José Pessoa, João Abel Manta: stadium of the University of Coimbra, 1955/1962.

was based on the previous proposal, while Alberto José Pessoa designed the architecture.³²⁴

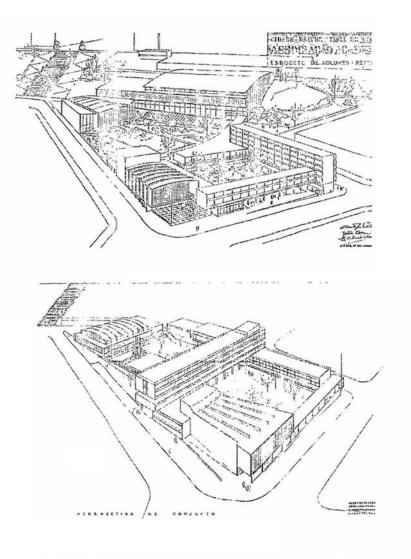
The first designs for the set of buildings of *Associação Académica's* facilities appear on August 17th 1954, by the hand of architect Alberto José Pessoa. But the project is constituted in its final form and program content between 1957 and 1959, together with his associate João Abel Manta.³²⁵

Alberto José Pessoa was invited to work for CAPOCUC as a professional architect and no longer an employee, as had happened ten years ago, under the orders of chief architects: Cottinelli Telmo and Cristino da Silva. For instance, the building of the Faculty of Humanities and the Public Library of 1945 are fruit of the ideological compromise of the artistic supervision of those chief architects, mostly when it came to the facades. However, the project for the academic facilities was implemented within the scope of its liberal activity. The distance in time and space added to a greater autonomy in that project for the *Associação Académica*. It clearly stands out from the rest of the buildings of the University City in *Alta*.

Besides, as noted by architect José António Bandeirinha, Alberto Pessoa's models of 1954 were certainly not the same as the ones built in 1945. The drastic experiences of the Second World War brought the aesthetic of monumental classicism to its downfall in the international arena. The modernist *International Style*, which had no undesirable political connotations, came alive again in 1945 and from then on was practiced worldwide. In Portugal this change came after the *I Congresso Nacional de Arquitectura* (First National Architecture Congress) of 1948. All these international and national consequences made

³²⁴ Ibid, p. 48.

³²⁵ Bandeirinha, José António Oliveira - Os edifícios da Associação Académica e o Teatro de Gil Vicente, 1998, p.
83.



Alberto José Pessoa, João Abel Manta: proposal for the Students' Association of Coimbra, perspective 1, 1954.
 Alberto José Pessoa, João Abel Manta: proposal for the Students' Association of Coimbra, perspective 2, 1954.

it possible for Alberto José Pessoa and João Abel Manta to create a building in the language of forms associated with the *International Style* or *Modern Movement*, and ideologically linked to functionalism. It also carried out an important element of continuity from the time of the first Portuguese modernists of 1922-1938. In combination of all these factors, the building of *Associação Académica* is considered to be "one of the most significant buildings in Coimbra after 1948".³²⁶

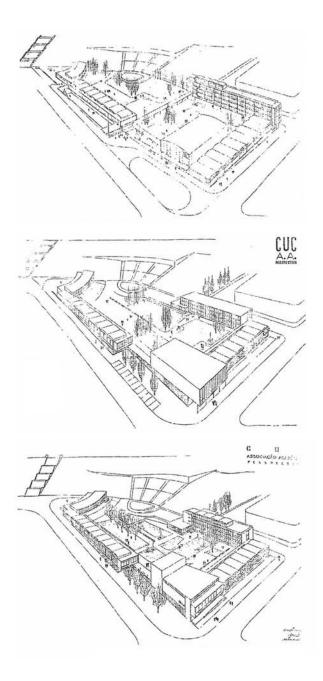
As was mentioned earlier, Alberto Pessoa and João Abel Manta's first studies for the academic facilities occurred in the form of perspectives in 1954-1955. At first, there was no a well-defined idea for the program of the buildings, but these designs were quite close to the final solution.

The first proposal, perspective 1, made in 1954, was rejected by the Minister of Public Works, who said that *Ninho dos Pequenitos* did not have the capacity to harbor the *Associação Académica* building, two swimming pools, one indoors and one outdoors, and a sports gymnasium.³²⁷ The lack of space would demand excessive occupation and strained inclusions to the slope. The central area of the block is built by two interlinked spaces. The block's interior space and the aesthetics of the buildings from the first sketches show a clear modernist reference and complete detachment from the monumental classicism imposed on Alberto José Pessoa in his previous works in *Alta*. [Fig. 182]

The second proposal, perspective 2, though still open to the outdoors, shows a central block down the middle, held up on *pilotis*, which provides a general view of the interior space. The gymnasium is no longer located on the slope and the theater moves forward towards *Praça da República*. [Fig. 183]

³²⁶ Ibid, p. 87.

³²⁷ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p. 247.



184. Alberto José Pessoa, João Abel Manta: proposal for the Students' Association of Coimbra, perspective 3, 1955.
185. Alberto José Pessoa, João Abel Manta: proposal for the Students' Association of Coimbra, perspective 4, 1955.
186. Alberto José Pessoa, João Abel Manta: proposal for the Students' Association of Coimbra, perspective 5, 1955.

Throughout 1955, José Pessoa and Abel Manta develop three new studies (perspectives 3, 4, 5) that come definitively closer to the final solution. They close off the center space, connect the buildings along the city block and include an outdoor amphitheater on the slope, which came to be abandoned due to "orders from above".³²⁸ During the last phase, they decided to definitively return the theater to *Praça da República* and move it over the sidewalk, making for a walking space topped by a hanging volume, held up on pillars. [Figs. 184-186]

The *Conselho Superior de Obras Públicas* (Superior Board of Public Works) harshly criticized the "architectural look" of the preliminary design of the *Associação Académica*. Engineer Antão de Almeida Garret's report of 1957 wanted the architects to design "based on Portuguese tradition."³²⁹ However, as confirmed by João Abel Manta, it was "necessary to give a medal to Cristino, because it was he who argued, before Sá e Melo, that an academic association should not descend into that sort of hierarchical architecture and had to be something different and new."³³⁰

Then, instead of seeking inspiration only in the national tradition, Alberto José Pessoa and João Abel Manta took the international influences, Le Corbusier, Leslie Martin, Alvar Aalto, Louis Kahn, to create the modern, functionalistic work. According to the authors, this concern is based on "the clarity and simplicity of the building structures, the discipline and coherence gave a birth to the architectural expression of the buildings themselves."³³¹ The building was built in such a way that it could be transformed

³²⁸ Bandeirinha, José António Oliveira - *Os edifícios da Associação Académica e o Teatro de Gil Vicente*, 1998, p. 85.

³²⁹ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p. 248.

³³⁰ Mendes, Rui Manuel Vaz - Instalações académicas de Coimbra, 2004, p. 150.

³³¹ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p. 248.



187. Alberto José Pessoa, João Abel Manta: administration block of the Students' Association of Coimbra, 1954/1962.
188. Le Corbusier: Unité d'Habitation, Marseille, 1947/1952.
189. Alison and Peter Smithsons: Hunstanton School, Great Britain, 1949/1953.
190. Photograph of the outer gallery and the inner garden of the Students' Association of Coimbra.

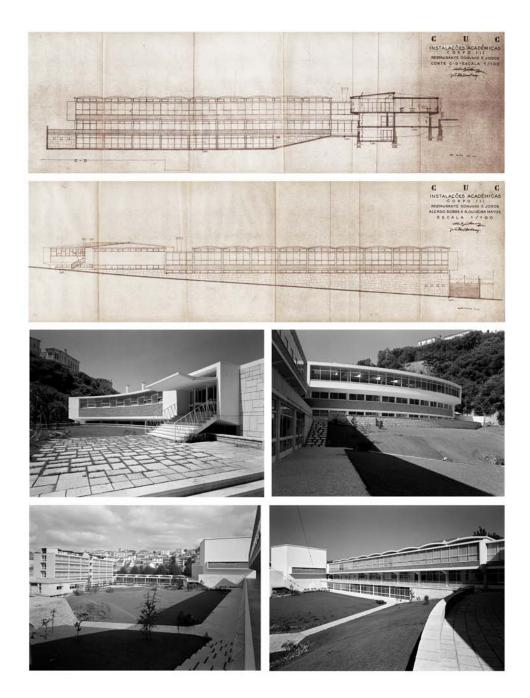
according to necessity, through the "model architecture which leaves the inner spaces free [...]. Give a module, take a module. That was the idea."³³²

The construction began only in 1957 and the facilities were opened in 1962. The separate segments of the complex were placed around the courtyard, each of them expressed in different scale and architectonic language according to the program. The whole was divided in three bodies. Body III was the first to be constructed. It faced Oliveira Matos Street and was occupied by the gymnasium, which also functioned as a banquet and conference hall, recreation rooms and restaurant with service area. Body I contained offices and administration for the many social, cultural and sports-related activities of the academy; it also included library, museum-exhibition area and medical aid office. The project of Body II was the last to be built and consisted of theater, rehearsal rooms and their annexes.

The architectonic language of *Associação Académica* naturally refers to some Portuguese architecture found after *I Congresso Nacional de Arquitectura*, the First National Architecture Congress of 1948, and several international influences of the time are also visible.

The administration block consists of five floors and is the tallest building in a whole composition. The sculptural structures on the roof top, the treatment of the façade and proportion of the volume itself is clearly reminiscent of the Le Corbusier's *Unité d'habitation* in Marseille, built between 1947 and 1952. [Figs. 187, 188] Although the *Unité d'habitation* was designed as a residential block, it was complemented with communal facilities such as laundries, roof gardens, nursery school and shopping center to fulfill the needs of collective living. It is possible to draw the parallel between these two

³³² Mendes, Rui Manuel Vaz - Instalações académicas de Coimbra, 2004, p. 149.



191, 192. Alberto José Pessoa, João Abel Manta: cross section through the restaurant and the east facade of the Body III of the Students' Association of Coimbra, 1954/1962.
193-196. Photographs of the Students' Association of Coimbra.

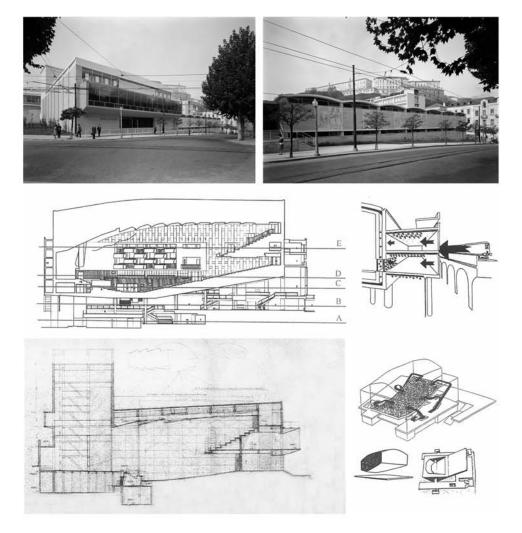
buildings, the *Unité d'habitation* and the complex of the *Associação Académica*, on the level of architectonic expression and also on programs where in the case of student's association the architect was seeking to create a building for the collective and fulfilling living of the student community.

The strictly axial layout of the façade refers back to Mies van der Rohe's concept of steelframe buildings and even more to Alison and Peter Smithsons' design for Hunstanton School in Great Britain (1949-1953). However, in contrast to Smithsons' steel-frame construction filled in with bricks, Alberto José Pessoa used concrete-frame construction and filled it with brick-tiles and window openings. [Fig. 189]

The English rationalist references are visible, in the protruding structure of slabs and beams of the façades, the outer galleries and the use of an inner garden. [Fig. 190]

The contrasts between materials and different expressions of the facades would make the viewer to draw conclusions about the role of different parts of the building. This unconditional honesty about materials and construction, the importance given to natural lighting and the relationship between the inside and outside are the references taken from Louis Kahn. As in the most Louis Kahn's buildings, the space outside becomes a determining factor in how the space inside is experienced. The idea of *Associação Académica* was to close the space from outside and group the program around the courtyard; only the building of the theatre has a strong relationship with the city. [Figs. 191-196]

In the building of the *Associação Académica*, great attention was given to the details such as interior design and furniture. This influence might have come from the Finnish architect and designer Alvar Aalto and his almost philosophical use of materials, closeness to landscape, and synthesis of international modernism (inner space



197, 198. Photographs of the Body II of the Students' Association of Coimbra.
199, 200, 202. Leslie Martin: section and scheme of the Royal Festival Hall, London, 1948/1951.
201. Alberto José Pessoa, João Abel Manta: section of the Body II through the theatre, 1954/1962.

organization that is visible from the outside) with the vernacular building tradition (in Alto's case, introducing wooden elements, in Pessoa's case, the use of Portuguese glazed tiles, lime stone and concrete).

The use of round-arched roofs in the buildings that partially befringe Sá da Bandeira Street and Oliveira de Matos Street, influenced by Keil do Amaral, were used in Metro Park Station in Lisbon in 1959, which became usual at the time in Portugal and Brazil. [Fig. 138, 198]

The programmatic intention for the theater, considered to be identical to that of the Royal Festival Hall by Leslie Martin, besides the auditorium whose proportion is 3:5:2, "an egg in a box"³³³, consisted of a space with a bar and exhibition gallery, which opens to the outdoors through wide windows. [Figs. 197-202]

The design process of the Students' Association complex began with a deep criticism from the authorities because of its architectonic language. Some of them imagined the building to be as monumental as the buildings in *Alta*, others saw it "more traditional, more Portuguese", but when the building was finally officially opened in 1962, public institutions and authorities ended up accepting the new aesthetics. Propaganda of Estado Novo proudly announced the building of *Associação Académica* to be modern, harmonious, functional and restful.³³⁴

³³³ Kruger, Mário - Leslie Martin e a Escola de Cambridge, 1999, p. 44.

³³⁴ Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra, 2006, p. 248.

5 CONCLUSION

Conclusion

Peripheral situation, lagging behind the current architectonic trends and technological backwardness, have been the determinant factors in defining the specificity of Portuguese and Lithuanian architecture. Nevertheless, both countries, one in the extreme southwest and the other in almost extreme northeast of Europe, within a very short period and almost without retardation managed to establish themselves among the other European nations by following the international tendencies and technological innovations and adapting them to the local situation, thus forming an architecture similar to the international style.

Coincidently or not, by late 1930s, when the left-wing and the right-wing totalitarian regimes consolidated their power and turned to ever increasing monumentalism and traditionalism, Lithuanian and Portuguese regimes also felt the need to create their own national style of architecture. Almost at the same time both countries saw a need to get rid of the "rootless cosmopolitan" architecture, - in other words, the avant-garde modernism, as both Hitler and Stalin used to describe, - which both countries enthusiastically explored in the beginning of 1930s, and create the proper style for the regime which was by its nature conservative, authoritarian, nationalistic and with the tingle of fascism.

The crucial turning point in Portugal from the avant-garde modernism towards the creation of national myth was marked by two events: "Portuguese World Exhibition" of 1940 and "Exhibition of Modern German Architecture" of 1941, which did not only made architects to look for the national style but also made Italian and German influences become more permeable in the country than ever.

On the other hand, Lithuania never had a chance to fully embrace this nationalistic peak. During the congresses and meetings in the third decade, politicians and architects actively discussed how to determine the 'Lithuanian style', but it mostly remained only a theoretical project, rather than a real and significant trend of architectural style. The country was occupied by the Soviet Union because of its geopolitical location, and Stalinist "wedding cake" aesthetics was introduced in the country immediately. Although the Stalin's constitution was adopted right after the occupation and the new political system was intensely enforced in all fields of life, including art and architecture, the process of Stalinization was not as damaging as in other Communist countries, because it came late only in 1940, while the *Socialist Realism* was active in 1933-1955.

From the end of 1930s, the monumental neo-classicism as architectonic expression and modernized neo-baroque composition in urban design became mandatory style for new large-scale public buildings of national importance, both in Lithuania and Portugal.

By the end of the Second World War, when the monumentality and classical language suddenly disappeared from the architectural discourse and was replaced by Modernist *International Style*, the language of forms associated with the modern avant-garde of the prewar era, process of artistic liberty did not appear with such a velocity in Portugal and Lithuania, as it did in Western European countries. Lithuania found itself isolated from the West under the Iron Curtain on the side of the Soviet Union, while in Portugal architectural production still found itself constrained by the New State's requirements of monumentality and traditionalism.

The changes came to Portugal after the "1st National Architectural Congress" of 1948, when authoritarian regime of *Estado Novo* began to lose its strength and the opportunity emerged for young generation of architects to return to the path of Modernism, to the functionalism and the line of CIAM. Lithuania as the whole communist block came back

to modernist tendencies only in 1955 after the famous Khrushchev's denunciation of Stalin's excesses, when he proudly proclaimed that "Soviet architecture must be characterized by simplicity, austerity of form and economy of layout. Buildings must be given an attractive appearance, not through the use of contrived expensive decorative ornamentalism, but by an organic connection between the architectural form of the building and its purpose, between good proportions and a proper use of materials, structures and detailing, as well as through high-quality workmanship."³³⁵

One stimulus for Lithuanian architects enthusiastically embrace the international modernism was to link it to the period of independence of 1920s-1930s. Since architects in the Soviet Union took functionalism as the only available style without questioning it, Lithuanian architects clung to notion that it was higher than just simply a style imposed by superiorities, for them it was the expression of western architecture with two important related ideas: "distance from Russian dominance and participation in a western community of democratic nations. Hence, modern architecture has 'served' in part to symbolize a measure of psychological and cultural freedom, and, of course, political independence."³³⁶ Lithuanian architects clung to the sense of "continuing a tradition" from the prewar era that evinced a hybrid character. Features of this tradition included respect for nature derived from vernacular style, local inflections of selected foreign trends and planning influences, but, generally, strong sense of particular Lithuanian *genius loci*.

From the end of the 1940's similar position was taken by Portuguese architects. On the one hand, they adopted the principles of the *International Style* and the "Athens Charter", and returned to the path of the first Portuguese modernist generation of 1920s. However,

³³⁵ **Sudjic, Deyan** - *The edifice complex: how the rich and powerful shape the world*, 2005, p. 122.

³³⁶ Maciuika, John – *Baltic Shores, Western Winds: Lithuanian architects and the Subversion of the Soviet Norm*, 2001, p. 110.

above all, the architects managed to look critically at the international modernism and combine it with location, memory and tradition. This combination emerged into a new way of thinking and projecting, where architects managed to overcome the "Modernist Myth".

Thus, returning to the universities, in 1930s, when the relation between architecture, politics and ideology was especially close, the entire dictionary of architectural and urban language was used to convey a "message of power". In order to achieve this goal, the spatial urban structure, the architectonic expression of façades, the inner space organization of buildings, as well as decorative arts, painting, sculpture, bas-reliefs, were used. All these artistic tools had to convey a clear message: authority, the cult of the leader and strength of the power that built those buildings.

During the first period of analysis, in 1930s-1940s, the university complexes used the Haussmann widening techniques, - improving circulation in the city by widening the streets and building the boulevards, - for their urbanistic model. The "antiquarian history" was respected only if it could be politicized and instrumentalized, in all other cases, most of the historical urban pattern was sacrificed in order to achieve a fully monumental proposal.

In the particular case of the University City of Coimbra, a large part of the medieval fabric of *Alta* was wiped off the map. The destruction of the inner-city dwellings forced the inhabitants to move from the city center to the suburban districts, thus causing the *monofunctionalization* of the university space. Meanwhile, in the case of Lithuania, a big part of the centuries old oak grove *Ąžuolynas* was mercilessly cut down for the construction of the Chamber of Physical Culture. These facts only reveals the then prevailing perception of the urban built heritage when it came to a conflict with building a new construction.

The urbanistic composition most of the times was created in the modernized neobaroque style by opening long horizontal perspectives, accompanied by a system of plazas and squares emphasized by sculptures, there was a strong feeling of symmetry, axiality and monumentality, this scenographycal composition often began and ended with the key accents.

In the case of Coimbra, the composition was started by monumental staircase and was closed by the oldest university building *Paço das Escolas*. While in Kaunas, the expressive urban composition of the Chamber of Physical culture has not been fully developed. It can be assumed that small scale of the building, close contact with the nature, as the building was surrounded by the oak grove, and the absence of surrounding buildings, which meant that there was no comparative basis, prevented to achieve a fully monumental proposal. This, and also because, in the case of Coimbra the monumental composition was achieved by creating a University City within a city composed of many buildings, meanwhile, in the case of Chamber of Physical Culture, one building did not have such a significant impact on the city's urban frame.

The modernized neo-classicism was used for the architectonic expression of the university buildings: symmetry, monumentality, emphasized verticality, focus on the center and the main entrance, massive volumes, clearly defined contact with the ground, the use of luxurious materials such as marble and lime stone, sculpture and reliefs contributed to emphasize what was ideologically important.

Unlike the scenographically pompous urban composition and the architectonic expression of the façades, the indoor space was solved very rationally, even functionally. The internal spatial structure and the layout of the university building reflected on the outside: monotonously repetitive window openings marked the classrooms; vertical glass strips accentuated the location of stairways. Above all, new materials, such as steel and

reinforced concrete, and modern methods of construction, namely skeleton construction, - despite the fact that those buildings were still capped by a stone façade, - made them to be linked to the Modern Movement rather than some retrospective classical style.

During the second period of analysis, in 1950s-1970s, the university complexes returned to the principles of the "Athens Charter" and the line of CIAM, when it was attempted to avoid trivial symmetry, there was no emphasis on compositional center neither in urban design nor in architectonic expression. Both cases revealed the different attitude towards the historical center and urban heritage in comparison with the period of the 1930s. The proposals tried to respect the historic center, - in the case of the Students' Association of Coimbra, - or built a completely new university city away from historical core, - in the case of the Kaunas Polytechnic Institute.

In the case of the Kaunas Polytechnic Institute, when it was a large complex consisting not only of teaching units, but also of other complementary structures such as dormitories, the student club, the canteen, and the sports zone, there was an opportunity to adapt the principles of the "Athens Charter" in a wider sense and resolve the urban composition by strict functional segregation; dividing the area into education, recreation, residential and circulation zones. Meanwhile, in the case of the Students' Association of Coimbra, a small scale of the building and the location in the city center, - complex was located at a lower elevation than the rest of the University City of Coimbra, - did not allow to adapt the key principles of the "Athens Charter" at the extent as it was achieved in the Lithuanian case. Nevertheless, modern perception of urban planning was there, the elaborated plan meant to solve housing, administrative, cultural and sports-related issues of the students community by proposing semi-separation of the diverse functions: the university stadium and students residences, - which ultimately were not built, - were

erected on the left margin of *Mondego* river, while the cultural and administrative facilities were constructed at the city center.

The urban arrangement or spatial structure of the university complexes built after the period of totalitarianism no longer had a preponderant compositional style. Although, it might be noticed that the linear arrangement of the university facilities was most common due to several reasons: according to the "Athens Charter", university campuses were mainly built on a soil free, undeveloped urban areas. Based on the same principles, the traffic and circulation became the leading and connective aspect of the whole composition. So the linear arrangement became the logical consequence of all these factors, even more, it allowed the university to expand along the compositional axis to both sides, according to the needs, without damaging the overall compositional structure.

The inner space organization, which is reflected on the outside, and the emphasis on functionality became the determine factors in the architectonic expression of the university buildings: a continuous horizontal window panes marked the location of classrooms and allowed the natural light in, the entrance was highlighted by a subtle horizontal roof, the flat roofs-terraces were applied, white stucco or other manufactured products were chosen as a finishing material. Sculptures, decorative arts were used to complement the overall architectural composition and no longer carried and important "ideological message".

The clarity and simplicity of the indoor layout was achieved by the use of skeleton construction and prefabricated elements. The inner structure composed in a way it could be transformed according to the necessity through the principle "give a model, take a model" and that the whole composition of a blueprint would not be affected from the aesthetic and functional perspective. This unconditional honestly about materials and construction, the importance given to natural lighting and solar orientation, abstract

façade language were the principles according to which these university complexes can be attributed to functionalism, the *International Style* and the line of CIAM.

The main position of this thesis is based on the assumption that architects, unlike other artists, cannot be seen as independent creators seeking only for the originality of forms. The architectonic expression of buildings is directly related to the whole complex of social, cultural, economic and political realities. Thus, if we recognize that the creation of architectural forms is not only the result of the architect's artistic activity, two main groups of actions determining the architectonic language can be distinguished:

1. Tangible factors: customer, budget and the functional typology of the building; available materials and the current technological capabilities.

2. Intangible factor or factors which are difficult to define: the current aesthetic perception and prevailing international trends; creative freedom of the architect as creator (political and ideological constraints and limitations).

However, even predicting the factors that might influence the architectonic language, one cannot dismiss the responsibility of the architect as a creator. His talent, the ability to balance between these shades of grey, resulted in the quality of the final product, no matter whether it was created in a style of modernized neo-classicism or Modernist *International Style*.

"In any culture, the architect has to establish a relationship with the rich and the powerful. There is nobody else with the resources to build. It is the genetically predetermined destiny of the architect to do anything he can to try to build, just as it is the mission of migrating salmon to make one last exhausting upriver trip to spawn before expiring. The architectural profession can be seen, then, not as well meaning, but ready to

enter into a Faustian bargain. They have no alternative but to trim and compromise with whatever regime is in power."³³⁷

³³⁷ **Sudjic, Deyan** - *The edifice complex: how the rich and powerful shape the world*, 2005, p. 10.

6 | BIBLIOGRAPHY & LIST OF ILLUSTRATIONS

Bibliography

A velha Alta...desaparecida: album comemorativo das bodas de prata da Associação dos Antigos Estudantes de Coimbra. Coimbra: Livraria Almedina, 1984. 129 p.

ABRAMAUSKAS, S. – **Architektas ir pedagogas**. <u>Statyba ir architektūra</u>. Nr. 8 (1980), p. 9.

ACCIAIUOLI, Margarida - A Exposição do Mundo Português. In: Fundação Calouste Gulbenkian (ed.). <u>Os Anos 40 na Arte Portuguesa</u>. Lisboa: Fundação Calouste Gulbenkian, 1982. Vol. 1. pp. 54-57.

ACCIAIUOLI, Margarida - A Utopia Duarte Pacheco. In: Fundação Calouste Gulbenkian (ed.). <u>Os Anos 40 na Arte Portuguesa</u>. Lisboa: Fundação Calouste Gulbenkian, 1982. Vol. 1. pp. 48-53.

ACCIAIUOLI, Margarida - Arquitectura e Urbanismo. In: Fundação Calouste Gulbenkian (ed.). Os Anos 40 na Arte Portuguesa. Lisboa: Fundação Calouste Gulbenkian, 1982. Vol. 1. pp. 128-131.

ACCIAIUOLI, Margarida - **O duplo jogo da arte e do poder**. In: ACCIAIUOLI, Margarida (coord.); LEAL, Joana Cunha (coord.); MAIA, Maria Helena (coord.). <u>Arte e Poder</u>. Lisboa: Instituto de História da Arte, Estudos de Arte Contemporânea, 2008. ISBN 9789899529113. pp. 13-23.

ACCIAIUOLI, Margarida - **O I Congresso Nacional de Arquitectura**. In: Fundação Calouste Gulbenkian (ed.). <u>Os Anos 40 na Arte Portuguesa</u>. Lisboa: Fundação Calouste Gulbenkian, 1982. Vol. 1. pp. 132-133.

ACCIAIUOLI, Margarida - **Os anos 40 em Portugal: o país, o regime e as artes: "restauração" e "celebração".** Lisboa: [s.n.], 1991. Doctoral dissertation, Faculty of Social Sciences and Humanities, Universidade Nova de Lisboa. 955 p.

ALMEIDA, Pedro Vieira de - **A arquitectura no Estado Novo: uma leitura crítica: os Concursos de Sagres**. Lisboa: Livros Horizonte, 2002. ISBN 9722412191. 261 p.

ALMEIDA, Pedro Vieira de; FERNANDES, José Manuel, PUBLICAÇÕES ALFA (ed.) -História da arte em Portugal. A Arquitectura Moderna. Lisboa: Publicações Alfa, 1986. Vol. 14.

AMAN, Anders - Architecture and ideology in Eastern Europe during the Stalin era: an aspect of Cold War history. New York: Architectural History Foundation; Cambridge (Mass.); London: MIT Press, 1992. ISBN 0262011301. 285 p.

AMARAL, Keil - **Planificação das novas Cidades Universitárias**. <u>Arquitectura: revista de</u> <u>arte e construção</u>. n.º 55-56, 2ª série (Janeiro/Fevereiro, 1956), pp. 6-13.

ANUŠAUSKAS, Arvydas; BUBNYS, Arūnas; KUODYTĖ, Dalia - **Lietuva 1940-1990:** okupuotos Lietuvos istorija. Vilnius: Lietuvos genocido ir rezistencijos muziejus, 2005. ISBN 9955601477. 712 p.

BALFOUR, Alan - Berlin: the politics of order 1737-1989. New York: Rizzoli, 1990. ISBN 0847812715. 269 p.

BALTUŠNIKAS Z.; MOROZOVA L.; SAULIS B., UMBRASAS A. - **Išvaduotam Kaunui 20 metų**. Kaunas: Šviesa, 1964. 16 p.

BANDEIRA, José Ramos - **Cidades Universitárias**. <u>Notícias Farmacêuticas</u>. ano IX. Vol. II (1943), pp. 97-128.

BANDEIRINHA, José António Oliveira - Os edifícios da Associação Académica e o Teatro de Gil Vicente. <u>Monumentos</u>. n.º 8 (Março, 1998), pp. 83-87.

BANDEIRINHA, José António Oliveira - Quinas vivas: memória descritiva de alguns episódios significativos do conflito entre fazer moderno e fazer nacional na arquitectura portuguesa. 2nd ed. Porto: FAUP Edições, 1996. ISBN 9729483159. 164 p.

BANHAM, Reyner - **Theory and Design in the First Machine Age**. Oxford: Butterworth Architecture, 1992. ISBN 0750607181. 338 p.

BARATA-MOURA, José - **A arte do poder e o poder da arte**. In ACCIAIUOLI, Margarida (coord.); LEAL, Joana Cunha (coord.); MAIA, Maria Helena (coord.). <u>Arte e</u> <u>Poder</u>. Lisboa: Instituto de História da Arte, Estudos de Arte Contemporânea, 2008. ISBN 9789899529113. pp. 27-69.

BARBOSA, Cassiano - **ODAM: Organização dos Arquitectos Modernos, Porto 1947-1952**. Porto: Edições Asa, 1972. 211 p.

BAUŽIENĖ, Morta [ed.]; LAGUNAVIČIUS, Alfonsas; KANČIENĖ, Jolita - Lietuvos moderno pastatai. Vilnius: Savastis, 1998. ISBN 9986420164. 76 p.

BECKER, Annette (org.); TOSTÕES, Ana (org.); WANG, Wilfried (org.) - Arquitectura do século XX: PORTUGAL. München, New York: Prestel; Frankfurt am Main: Deutsches Architektur-Museum; Lisboa: Portugal-Frankfurt 97; Lisboa: Centro Cultural de Belém, 1997. ISBN 3791319108. 352 p.

BENEDITA, Sílvia Cláudia Rodrigues - **Expressão: fascista? O percurso da Cidade Universitária de Coimbra como expressão de uma arte política.** Coimbra: [s.n.], 1999. Prova final de licenciatura, Department of Architecture at the Faculty of Science and Technology, University of Coimbra. 347 p.

BENEVOLO, Leonardo - **History of modern architecture**. Vol. 2. Cambridge, Massachusetts: The M.I.T. Press, 1992. ISBN 0262520451. 868 p.

BORSI, Franco - **The monumental era: European architecture and design 1929-1939**. London: Lund Humphries, 1987. ISBN 0853315167. 207 p.

BOTELHO, José Rafael; CASTRO, Celestino de - **Novas instalações universitárias em Portugal**. <u>Arquitectura: revista de arte e construção</u>. n.º 55-56, 2ª série (Janeiro/Fevereiro, 1956), pp. 30-34.

BUČAS, Jurgis (ed); MINKEVIČIUS, Jonas; KANČIENĖ, Jolita [et al.] - **Kauno** technologijos universiteto pastatai: istorija ir architektūra. Kaunas: Technologija, 2000. ISBN 9986138590. 190 p.

CALDAS, João Vieira – **Cinco entremeios sobre o Ambíguo Modernismo**. In: BECKER, Annette (org.); TOSTÕES, Ana (org.); WANG, Wilfried (org.). <u>Arquitectura do século</u> <u>XX: PORTUGAL</u>. München, New York: Prestel; Frankfurt am Main: Deutsches Architektur-Museum; Lisboa: Portugal-Frankfurt 97; Lisboa: Centro Cultural de Belém, 1997. ISBN 3791319108. pp. 23-32.

CARVALHO, Daniel Beirão de - **Monumentality in power: a Portuguese case 1926-1974: the University of Coimbra and the construction of national culture.** Delft: [s.n.], 2008. Master thesis, Faculty of Architecture, Delft University of Technology. 119 p.

Cidade Universitária de Coimbrae edifícios do Observatório Astronómico: 22 de Novembro de 1951. Lisboa: Ministério das Obras Públicas, 1951. 4 p.

CORREIA, Maximino - **Ao serviço da Universidade de Coimbra: 1939-1960**. Coimbra: Por Ordem da Universidade, 1963. 568 p.

COSTA, Alexandre Alves - A Cidade e a Acrópole. <u>Monumentos</u>. n.º 8 (Março, 1998), pp. 101-102.

COSTA, Sandra Vaz - A escutura monumental. <u>Monumentos</u>. n.º 8 (Março, 1998), pp. 79-81.

CROWLEY, David - Fate of the last generation of ultra-modernist buildings in Eastern Europe under Communist rule. In: lecture held in Vilnius. <u>Modernism.lt. Influences</u>, Ideologies, Heritage. September 9th, 2010. Accessible: http://vimeo.com/18726853#at=0

CURTIS, William J.R. - **Modern Architecture since 1900**. 2nd ed. Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1987. ISBN 0135866944. 431 p.

DIAS, Pedro - Evolução do Espaço Urbano de Coimbra. <u>Munda: revista do Grupo de</u> <u>Arqueologia e Arte do Centro</u>. n.º 2 (Novembro, 1981), pp. 5-11.

DISTEL, Walter - **Construção de Hospitais**. <u>Hospitais Portugueses</u>. n.º4 (Abril/Junho, 1949), pp. 19-29.

DYCKHOFF, Tom - Mies and the Nazis. <u>The Guardian</u>. (30 November, 2002). http://www.guardian.co.uk/artanddesign/2002/nov/30/architecture.artsfeatures.

DRĖMAITĖ, Marija; PETRULIS, Vaidas; TUTLYTĖ, Jūratė - **Architektūra sovietinėje Lietuvoje.** Vilnius: Vilniaus dailės akademijos leidykla, 2012. ISBN 9786094470240. 411 p.

DUBOVIJIENĖ, Inga - **KTU studentų miesteliui – 50 metų**. <u>Studijų aidai</u>. (lapkričio 10, 2011), p. 8.

EIDINTAS, Alfonsas - **Antanas Smetona ir jo aplinka**. Vilnius: Mokslo ir enciklopedijų leidybos centras, 2012. ISBN 9785420017050. 511 p.

Edifício da Secção da Matemática da Faculdade de Ciências da Universidade de Coimbra. Coimbra: Ministério das Obras Públicas,Comissão Administrativa do Plano de Obras da Cidade Universitária de Coimbra, 1969. 12 p.

FALASCA-ZAMPONI, Simonetta - Fascist spectacle: the aesthetics of power in Mussolini's Italy. Berkeley: University of California Press, 1997. ISBN 0520206231. 303 p.

FERNANDES, José Manuel - **Arquitectos do século XX: da tradição à modernidade**. Casal de Cambra: Caleidoscópio, 2006. ISBN 9898010061. 197 p.

FERNANDES, José Manuel - Arquitectura modernista em Portugal: 1890-1940. Lisboa: Gradiva, 1993. 159 p.

FERNANDES, José Manuel - **Para o estudo da arquitectura modernista em portugal**. <u>Arquitectura: arquitectura, planeamento, design, construção, equipamento</u>. n.º 132, 4ª série (Fevereiro/Março, 1979), pp. 54-65.

FERNANDES, José Manuel - **Português suave: arquitecturas do Estado Novo**. Lisboa: IPPAR, 2003. ISBN 9728736266. 243 p.

FERNANDEZ, Sergio - **Percurso: arquitectura portuguesa 1930-1974**. 2nd ed. Porto: FAUP, 1988. 207 p.

Fiziško Auklėjimo Draugijos delegacija pas Ekscelenciją Respublikos Prezidentą A.Smetoną. <u>Fiziškas auklėjimas</u>. Nr. 3 (1931), pp. 188-192.

Fiziško auklėjimo rūmai. Bangos. Nr. 19 (1932), p. 563.

Fiziško Auklėjimo Rūmų įstatymą priėmus. Lietuvos aidas. (birželio 11, 1932), p. 7.

FRAMPTON, Kenneth - **Modern architecture: a critical history**. 3rd ed. London: Thames & Hudson, 2002. ISBN 0500202575. 376 p.

FRANÇA, José Augusto - **A arquitectura dos anos 30 e 40: Ramos, Cristino, Cassiano, Pardal e Duarte Pacheco**. In FRANÇA, José Augusto. <u>A arte em Portugal no século XX:</u> <u>1911-1961</u>. 4th ed. Lisboa: Livros Horizonte, 2009. ISBN 9789722415835. pp.159-182.

FRANÇA, José Augusto - **A arte em Portugal no século XX: 1911-1961**. 4th ed. Lisboa: Livros Horizonte, 2009. ISBN 9789722415835. 470 p.

FRANÇA, José Augusto - **O I congress nacional de arquitectura e a arquitectura dos anos 50**. In: FRANÇA, José Augusto. <u>A arte em Portugal no século XX: 1911-1961</u>. 4th ed. Lisboa: Livros Horizonte, 2009. ISBN 9789722415835. pp. 293-310.

GIEDION, Sigfried - Architecture you and me: the diary of development. Cambridge, Mass.: Harvard University Press, 1958. 221 p.

GOLOMSTOCK, Igor - Totalitarian art in the Soviet Union, the Third Reich, fascist Italy and the People's Republic of China. Transl. from the Russian by Robert Chandler. New York: Overlook Duckworth, 2011. ISBN 9780715641064. 420 p.

GONÇALVES, José Fernando de Castro - **Ser ou não ser moderno: considerações sobre a arquitectura modernista portuguesa.** Coimbra: EDARQ, 2002. ISBN 9729738386. 167 p.

GLENDINNING, Miles - The Conservation Movement: A History of Architectural Preservation Antiquity to Modernity. Ebook: Routledge, 2013. ISBN 9780203080399. 535 p.

GRANDE, Nuno – Arquitecturas da cultura : política, debate, espaço: génese dos grandes equipamentos culturais da contemporaneidade portuguesa. Coimbra: Tese de Doutoramento em Arquitectura apresentada à FCTUC, 2009. 605 p.

GRANDE, Nuno – **3 pólos universitários, 3 "faces" da arquitectura portuguesa**. <u>Rua</u> <u>Larga</u>. Coimbra: Universidade de Coimbra. n.º 29 (2010a), pp. 58-65.

GRANDE, Nuno - **Obra pública**. In: GRANDE, Nuno. <u>O verdadeiro mapa do universo:</u> <u>uma leitura diacrónica da cidade portuguesa</u>. Coimbra: EDARQ, 2002. ISBN 9729738378. pp. 121-133.

GUARDA, Israel - **Espaços urbanos e poder. O modelo e a prática nas décadas de 30 e 40**. In ACCIAIUOLI, Margarida (coord.); LEAL, Joana Cunha (coord.); MAIA, Maria Helena (coord.). <u>Arte e Poder</u>. Lisboa: Instituto de História da Arte, Estudos de Arte Contemporânea, 2008. ISBN 9789899529113. pp. 181-192.

GUDANAVIČIŪTĖ, Vanda - Nauji rūmai studentams. <u>Statyba ir architektūra</u>. Nr. 5(1985), p.5.

GULBINAS, Vytautas - Tautinė produkcija – svajonė ar realybė? <u>Studijų aidai</u>. (balandžio 26, 1990), pp. 3-4.

GUMULIAUSKAS, Arūnas – Lietuvos istorija: 1795-2009. Šiauliai: Lucilijus, 2010. ISBN 9789955320944. 427 p.

HAKE, Sabine - **Topographies of Class: Modern Architecture and Mass Society in Weimar Berlin**. Ann Arbor: University of Michigan. ISBN 9780472050383. 323 p.

HEYNEN, Hilde - Architecture and modernity: a critique. 2nd ed. Cambridge: MIT Press, 1999. ISBN 0262082640. 265 p.

HITCHCOCK, Henry-Russell; JOHNSON, Philip - **The International Style**. New York, London: W.W. Norton & Company, 1995. ISBN 9780393315189. 269 p.

IBELINGS, Hans - European architecture since 1890. Amsterdam: SUN, 2011. ISBN 9789085068815. 236 p.

Įkurtuvės studentų miestelyje. Kauno tiesa. (sausio 20, 1984), p. 3.

Inauguração das instalações do Arquivo e Museu de Arte no novo edifício construído pela comissão de obras da cidade universitária de Coimbra: discursos. Coimbra: Gráfica de Coimbra, 1948. 15 p.

Inauguração dos edifícios da Faculdade de Letras e do Observatório Astronómico construídos pela Comissão de Obras da Cidade Universitária de Coimbra : discursos proferidos na sessão de 22 de Novembro de 1951 presidida por sua Excelência o Chefe do Estado General Francisco Higino Craveiro. Coimbra: Imprensa de Coimbra, 1951. 30 p.

JANKEVIČIENĖ, Algė; LEVANDAUSKAS, Vytautas; MIŠKINIS, Algimantas [et al.] - **Kauno architektūra**. Vilnius: Mokslas, 1991. ISBN 5420006413. 367 p.

JANKEVIČIŪTĖ, Giedrė - **Dailė ir valstybė: dailės gyvenimas Lietuvos Respublikoje 1918–1940**. Kaunas: Nacionalinis M. K. Čiurlionio dailės muziejus, 2003. ISBN 9955471069. 303 p.

KANČIENĖ, Jolita; MINKEVIČIUS, Jonas - Architektas Vytautas Landsbergis-Žemkalnis. Vilnius: Mokslo ir enciklopedijų leidykla, 1993. 90 p.

KANČIENĖ, Jolita; ADOMAVIČIENĖ, Nijolė; ANDRIUŠIS, Aurimas - **Kultūra. Iliustruota Lietuvos enciklopedija**. Kaunas: Šviesa, 2006. ISBN 5430041882. 126 p.

KOPP, Anatole - Town and revolution: Soviet architecture and city planning 1917-1935. London: Thames and Hudson, 1970. 274 p.

KOSTOF, Spiro - **A history of architecture: settings and rituals.** 2nd ed. New York: Oxford University Press, 1995. ISBN 0195083792. 792 p.

KOSTOF, Spiro - **The third Rome 1870-1950: traffic and glory**. Berkeley: University Art Museum, 1973. 88 p.

KRUGER, Mário - **Leslie Martin e a Escola de Cambridge**. Coimbra: Departamento de Arquitectura da Faculdade de Ciências e Tecnologia, 2005. ISBN 9729738394. 147 p.

LANDSBERGIS, Vyt.; MILIS S. - **Naujos sistemos gelžbetoninis perdengimas**. <u>Technikos apžvalga</u>. Nr.1 (1935), pp. 24-26.

LANDSBERGIS, Vytautas - **Fiziško auklėjimo rūmai**. <u>Fiziškas auklėjimas</u>. Nr. 2 (1931), pp. 109-114.

LANDSBERGIS, Vytautas - Iš atminties ekrano: rašyta ir pasakota. Vytautas Landsbergis-Žemkalnis. Vilnius: Versus aureus, 2009. ISBN 9789955342489. 517 p.

LEACH, Neil (ed.) - Architecture and revolution: contemporary perspectives on Central and Eastern Europe. London: Routledge, 1999. ISBN 0415139417. 238 p.

LEE, Stephen J. - **The European dictatorships: 1918-1945**. 2nd ed. London, New York: Routledge, 2000. ISBN 0415230462. 340 p.

LE CORBUSIER – **The Athens charter**. Transl. from French by Anthony Eardley. New York: Grossman Publishers, 1973. 111 p.

LOBO, Huertas - **Cidades Universitárias**. <u>Arquitectura: revista de arte e construção</u>. n.º 55-56, 2ª série (Janeiro/Fevereiro, 1956), pp. 2-5.

MACIUIKA, John – Baltic Shores, Western Winds: Lithuanian Architects and the Subversion of the Soviet Norm. <u>Centropa: A Journal of Central European Architecture</u> and the Related Arts. Nr. 2 (May, 2001), pp. 108-116. Accessible online: http://faculty.baruch.cuny.edu/jmaciuika/documents/jornals/centropa.pdf

MARBOE, Isabella – Soviet Modernism. <u>Domus</u>. (25 December, 2012). Accessible online: http://www.domusweb.it/en/architecture/2012/12/25/soviet-modernism.html

MARGARIDO, Ana Paula; QUEIRÓS, Margarida Vilar - A Universidade de Coimbra e as alterações da malha urbana da Alta. In Comissão Organizadora do Congresso "História da Universidade" (ed.). <u>Universidade(s). História- Memória- Perspectivas. Actas do Congresso "História da Universidade" 5 a 9 Março de 1990</u>. Coimbra, 1991. Vol. 2. pp. 357-365.

MARTYNAITIS, Marijonas - Kauno Antano Sniečkaus politechnikos institutas. Vilnius: Mokslas, 1979. 256 p.

MATUKONIS, Algirdas (ed); DUOBINIENĖ, Genė; JAKIMAVIČIUS, Česlovas [et al.] -**Nuo Aukštųjų kursų Kaune iki Kauno technologijos universiteto 1920-1997**. Kaunas: Technologija, 1997. ISBN 9986134498. 454 p.

MENDES, Rui Manuel Vaz - **Instalações académicas de Coimbra**. Coimbra: [s.n.], 2004. Prova final de licenciatura, Department of Architecture at the Faculty of Science and Technology, University of Coimbra. 176 p.

MILLAIS, Malcolm - **Exploding the myths of modern architecture**. London: Frances Lincoln, 2009. ISBN 9780711229747. 296 p.

MINKEVIČIUS, J. - Naujosios Kauno statybos. <u>Mokslas ir gyvenimas</u>. Nr. 4 (1964), pp. 17-18.

MISEVIČIUS, V. - Čia gyvens studentai. Kauno tiesa. (balandžio 21, 1971).

MISEVIČIUS, V. - Rūmai stambiausi Kaune. Kauno tiesa. (gruodžio 27, 1969).

MIŠKINIS, Algimantas - Kaunas Laisvės alėja. Vilnius: Savastis, 2009. ISBN 9789986420798. 191 p.

MUMFORD, Eric - The CIAM discourse on urbanism 1928-1960. Cambridge (Mass.); London: MIT Press, 2000. ISBN 0262133644. 375 p.

NAKAS, Algimantas - Architektas inžinierius Vytautas Landsbergis-Žemkalnis ir jo darbų konstruktoriai. Vilnius: Technika, 1997. 192 p.

Nauji fakulteto rūmai studentų miestelyje. Kauno tiesa. (rugsėjo 2, 1984), p. 2.

O novo edifício da Faculdade de Letras na Cidade Universitária. Lisboa: Ministério das Obras Públicas, Comissão Administrativa das Novas Instalações Administrativas, 1958. 9 p.

O que sera a Cidade Universitaria de Coimbra. <u>Diario de Noticias</u>.(17 de Janeiro, 1943), p.1.

PAPERNYJ, Vladimir - Architecture in the age of Stalin: culture two. Cambridge: Cambridge University Press, 2002. ISBN 0521451191. 371 p.

PAYNE, Stanley G. - A history of fascism, 1914-1945. Madison: University of Wisconsin Press, 1995. ISBN 029914870X. 613 p.

PAYNE, Stanley G. - A history of Spain and Portugal. London: The University of Wisconsin Press, 1976. ISBN 0299062848. Vol. 2. pp. 652-697.

PEČKAITIS, E. - Toliau stiprės instituto bazė. Kauno tiesa. (spalio 27, 1971).

PEDREIRINHO, José Manuel - A arquitectura portuguesa do Fascismo ao Estado Novo (2): influências dos regimes alemão, italiano e espanhol. <u>História</u>. n.º 46 (Agosto, 1982), ISSN 08704538, pp. 25-37.

PEREIRA, Nuno Teotónio - **A arquitectura do Estado Novo como instrumento de inculcação ideológica**. In ACCIAIUOLI, Margarida (coord.); LEAL, Joana Cunha (coord.); MAIA, Maria Helena (coord.). <u>Arte e Poder</u>. Lisboa: Instituto de História da Arte, Estudos de Arte Contemporânea, 2008. ISBN 9789899529113. pp. 193-204.

PEREIRA, Nuno Teotónio – A Arquitectura de Regime, 1938-1948. In: BECKER, Annette (org.); TOSTÕES, Ana (org.); WANG, Wilfried (org.). <u>Arquitectura do século</u> <u>XX: PORTUGAL</u>. München, New York: Prestel; Frankfurt am Main: Deutsches Architektur-Museum; Lisboa: Portugal-Frankfurt 97; Lisboa: Centro Cultural de Belém, 1997. ISBN 3791319108. pp. 33-39.

PEREIRA, Nuno Teotónio - **Foi o salazarismo um fascismo? O que diz a arquitectura**. <u>Público</u>. n.º 1230 (Domingo, 18 de Julho, 1993), ISSN 08721548, p. 26.

PEREIRA, Nuno Teotónio; FERNANDES, José Manuel - **A arquitectura do Estado Novo de 1926 a 1959**. In PINTO, António Costa (ed.). <u>O Estado Novo: das Origens ao fim da Autarcia: 1926-1959: colóquio</u>. Lisboa: Fragmentos, 1987. Vol. 2. pp. 323-355.

PEREIRA, Nuno Teotónio; FERNANDES, José Manuel - **A arquitectura do fascismo em Portugal**. <u>Arquitectura: arquitectura, planeamento, design, construção, equipamento</u>. n.º 142, 4ª série (Julho, 1981), pp. 38-49.

PETRULIS, Vaidas - Sovietmečio visuomeninių pastatų architektūra Lietuvoje: stilistinė raida ir sociokultūriniai kontekstai. Kaunas: [s.n.], 2005. Doctoral dissertation, Vytautas Magnus University. 99 p.

PETRULIS, Vaidas - Iracionalistiniai XX s. pradžios sprendiniai: istorizmas ir tautinis stilius. Architektūros ir urbanistikos tyrimų centras. 2012. Accessible online: http://www.autc.lt/Handlers/LectureHandler.ashx?fn=Tekstas.pdf&id=7

PETRULIS, Vaidas – **Vytautas Jurgis Dičius: kūryboje sustingęs laikas**. <u>Archiforma</u>. Nr. 3 (2006), pp. 36-43.

PLUMB, Steve - Neue Sachlichkeit 1918-33: Unity and Diversity of an Art Movement. Amsterdam, New York: Rodopi, 2006. ISBN 9789042020191. 165 p.

PORTAS, Nuno - A arquitectura para hoje: evolução da arquitectura moderna em Portugal. 2nd ed. Lisboa: Livros Horizonte, 2008. ISBN 9789722415668. 210 p.

PORTAS, Nuno - A evolução da arquitectura moderna em Portugal: uma interpretação. In ZEVI, Bruno. <u>História da arquitectura moderna</u>. Lisboa: Arcádia, 1973. Vol. 2. pp. 687-746.

RAMOS, Jorge - **Modernidade e tradição algumas reflexões em torno da exposição do Mundo Português**. In PINTO, António Costa (ed.). <u>O Estado Novo: das Origens ao fim</u> <u>da Autarcia: 1926-1959: colóquio</u>. Lisboa: Fragmentos, 1987. Vol. 2. pp. 177-185.

RANTA, Michael - Narrativity and Historicism in National Socialist Art. <u>Kunsttexte.de</u>, <u>Politische Ikonographie</u>. Nr. 3 (2010), pp. 1-14. Accessible online: http://edoc.hu-berlin.de/kunsttexte/2010-3/ranta-michael-6/PDF/ranta.pdf.

RASMUSSEN, Mikkel Bolt; WAMBERG, Jacob - **Totalitarian Art and Modernity**. Aarhus: Aarhus University Press, 2010. ISBN 9788779345607. 359 p.

RIBEIRO, Ana Isabel - Arquitectos Portugueses: movimento associativo durante o Estado Novo. In ACCIAIUOLI, Margarida (coord.); LEAL, Joana Cunha (coord.); MAIA, Maria Helena (coord.). <u>Arte e Poder</u>. Lisboa: Instituto de História da Arte, Estudos de Arte Contemporânea, 2008. ISBN 9789899529113. pp. 317-331.

RODEIA, João Belo; TOSTÕES, Ana; LACERDA, Manuel (ed.) - Arquitectura moderna portuguesa: 1920-1970. Lisboa: IPPAR, 2004. ISBN 9728736355. 391 p.

RODRIGUES, José Manuel (ed.); TOSTÕES, Ana [et al.] - **Teoria e crítica de arquitectura: século XX.** Lisboa: Ordem dos Arquitectos - Secção Regional Sul, 2010. ISBN 9789896580650. 1022 p.

ROSMANINHO, Nuno - A Cidade Universitária de Coimbra e a expressão totalitária da arte. <u>Latitudes</u>. n.º 26 (Abril, 2006), pp. 9-15.

ROSMANINHO, Nuno - A Cidade Universitária de Coimbra no Estado Novo. Monumentos. n.º 8 (Março, 1998), pp. 73-77.

ROSMANINHO, Nuno - **António Ferro e a propaganda nacional antimoderna**. In TORGAL, Luís Reis (coord.); HELOÍSA, Paulo (coord.). <u>Estados autoritários e totalitários e suas representações: propaganda, ideologia, historiografia e memória</u>. Coimbra: Imprensa da Universidade de Coimbra, 2008. ISBN:9789898074539. pp. 289-299.

ROSMANINHO, Nuno - **O Estado Novo e a arte: a cidade Universitária de Coimbra**. In D'ENCARNAÇÃO, José (coord.). <u>A história tal qual se faz</u>. Coimbra: FLUC, 2003. ISBN 972772373X. pp. 257-273.

ROSMANINHO, Nuno - **O poder da arte: o estado novo e a cidade universitária de Coimbra**. Coimbra: Imprensa da Universidade, 2006. ISBN 9728704550. 410 p.

ROSMANINHO, Nuno - **O poder da arte: o Estado Novo e a Cidade Universitária de Coimbra.** Coimbra: [s.n.], 2005. Doctoral dissertation, Faculty of Humanities, University of Coimbra. 676 p.

ROSMANINHO, Nuno - **O princípio de uma "revolução urbanística" no Estado Novo:** os primeiros programas da cidade universitária de Coimbra 1934-1940. Coimbra: Minerva, 1996. ISBN 9729130000. 340 p.

SANTOS, Pedro Rafael Pavão dos - **Quatro "bandeirantes" do modernismo nas "fases estilísticas" do Estado Novo**. In ACCIAIUOLI, Margarida (coord.); LEAL, Joana Cunha (coord.); MAIA, Maria Helena (coord.). <u>Arte e Poder</u>. Lisboa: Instituto de História da Arte, Estudos de Arte Contemporânea, 2008. ISBN 9789899529113. pp. 345-361.

SCOBIE, Alexander - Hitler's state architecture: the impact of classical antiquity. University Park, Pa.; London: Pennsylvania State University Press for the College Art Association, 1990. ISBN 271006919. 152 p.

SILVA, Carlos Nunes - **A "Urbanística" do Estado Novo 1926-1959: nem nacional nem fascista**. In PINTO, António Costa (ed.). <u>O Estado Novo: das Origens ao fim da Autarcia:</u> <u>1926-1959: colóquio</u>. Lisboa: Fragmentos, 1987. Vol. 2. pp. 377-383.

STONE, Marla Susan - **The Patron State: Culture & Politics in Fascist Italy**. Princeton, New Jersey: Princeton University Press, 1998. ISBN 0691029695. 334 p.

Studentų miestelis - unikali erdvė. Kauno diena. (spalio 24, 2011), p. 5.

"Studentų Respublika" Žaliakalnyje. Komjaunimo tiesa. (lapkričio 6, 1965).

SUDJIC, Deyan - The edifice complex: how the rich and powerful shape the world. London: Allen Lane, 2005. ISBN 071399762. 345 p.

SULLIVAN, Louis H. - **The Tall Office Building Artistically Considered**. <u>Lippincott's</u> <u>Magazine</u>. (March 23. 1896), pp. 403-409. Accessible online: http://archive.org/stream/tallofficebuildi00sull#page/n3/mode/2up.

TAINHA, Manuel - **Planificação**. <u>Arquitectura: revista de arte e construção</u>. n.º 55-56, 2ª série (Janeiro/Fevereiro, 1956), pp. 14-27.

TARKHANOV, Alexei; KAVTARADZE, Sergei - **Stalinist architecture**. London: King, 1992. ISBN 1856690164. 192 p.

TAYLOR, Robert R. - The word in stone: the role of architecture in the National Socialist ideology. Berkeley: University of California Press, 1974. 298 p.

TINNISWOOD, Adrian - Visions of power: ambition and architecture from ancient Rome to modern Paris. London: Mitchell Beazley, 1998. ISBN 1840000279. 192 p.

TORGAL, Luís Reis - A Universidade e a academia de Coimbra perante o Estado Novo 1926-1961: entre a tradição e a inovação. In <u>Revista de história</u>. Porto: Centro de História da Universidade do Porto, 1990. Vol. 10. pp. 207-216.

TORGAL, Luís Reis - **A Universidade e o Estado Novo: o caso de Coimbra: 1926-1961**. Coimbra: Minerva, 1999. ISBN 9728318596. 296 p.

TORGAL, Luís Reis - Coimbra: "cidade-universitária" ou "cidade (e) universidade"? <u>Monumentos</u>. n.º 8 (Março, 1998), pp. 11-13.

TOSTÕES, Ana – **Modernização e Regionalismo, 1948-1961**. In: BECKER, Annette (org.); TOSTÕES, Ana (org.); WANG, Wilfried (org.). <u>Arquitectura do século XX:</u> <u>PORTUGAL</u>. München, New York: Prestel; Frankfurt am Main: Deutsches Architektur-

Museum; Lisboa: Portugal-Frankfurt 97; Lisboa: Centro Cultural de Belém, 1997. ISBN 3791319108. pp. 41-53.

TOSTÕES, Ana - **Os verdes anos na arquitectura portuguesa dos anos 50**. 2nd ed. Porto: FAUP, 1997. ISBN 9729483302. 349 p.

VALE, Lawrence J. - Architecture, power, and national identity. New Haven: Yale University Press, 1992. ISBN 0300049587. 338 p.

VASILIAUSKAS, T. - **Studentų laukia įkurtuvės**. <u>Komjaunimo tiesa</u>. (rugsėjo 15, 1964), p. 2.

VENCKUTĖ, V. - Čia bus jaunystės miestas. Kauno tiesa. (vasario 27, 1973), p. 2.

WOOLF, Stuart - Fascismo e autoritarismo: em busca de uma tipologia do fascismo Europeu. In PINTO, António Costa (ed.). <u>O Estado Novo: das Origens ao fim da Autarcia: 1926-1959: colóquio</u>. Lisboa: Fragmentos, 1987. Vol. 1. pp.15-21.

WHYTE, Iain Boyd (ed.); FRISBY, David (ed.) - **Metropolis Berlin 1880-1940**. Berkeley: University of California Press. ISBN 9780520270374. 638 p.

ZABIELSKAS, A. - Trumpa ekskursija į ateitį. Kauno tiesa. (balandžio 28, 1963), p. 3.

ZEVI, Bruno - **The modern language of architecture**. Canberra: Australian National University Press, 1978. ISBN 0708108857. 241 p.

List of Illustrations

1. http://alliance.la.asu.edu/maps/EU_BeforeWW2.pdf

2. http://alliance.la.asu.edu/maps/EU_AfterWW2.pdf

3. http://mimoa.eu/images/1459_l.jpg

4. http://farm5.staticflickr.com/4140/4960091828_88c949b843_0.jpg

5. http://24.media.tumblr.com/tumblr_m7903wzD1r1qie8fko1_r1_1280.jpg

6. http://pcdn.500px.net/6467684/8564da928278c4172e8774270db3e42dc12f7c52/4.jpg

7. Kopp, Anatole - Town and revolution: Soviet architecture and city planning 1917-

1935. London: Thames and Hudson, 1970. pp. 136-137.

8. Curtis, William - **Modern architecture since 1900**. Englewood Cliffs, New Jersey: Prentice Hall Inc, 1987. ISBN 0135866944. p. 114.

9. http://rosswolfe.files.wordpress.com/2011/09/bauhaus-dessau-architecture03dd.jpg
10. http://skyscraper.org/EXHIBITIONS/PAPER_SPIRES/walkthrough_images/ chi/diptychs.jpg

11. http://24.media.tumblr.com/tumblr_me43db2PE11rtkatjo1_1280.png

12. http://skyscraper.org/EXHIBITIONS/PAPER_SPIRES/walkthrough_images/ chi/diptychs5.jpg

13. http://skyscraper.org/EXHIBITIONS/PAPER_SPIRES/walkthrough_images/ chi/diptychs5.jpg

14. http://betterarchitecture.files.wordpress.com/2012/11/league-of-nationsisometric.jpg?w=448&h=593

15. http://www.mrporter.com/mrporter/content/journal/280513/theReport/gallery Image2.jpg

16. http://coisasdaarquitetura.files.wordpress.com/2011/09/soc-nac-nenot-cc3b3pia.jpg
17. Tarkhanov, Alexei; Kavtaradze, Sergei - Stalinist architecture. London: King, 1992.
ISBN 1856690164. p. 32.

18. http://25.media.tumblr.com/tumblr_m7s71wRZ3l1qln4yro1_1280.jpg

19. Igor Golomstock - Totalitarian art in the Soviet Union, the Third Reich, fascist

Italy and the People's Republic of China. London: Collins Harvill, 2011. ISBN 0002728060. p. 49.

20. Ibid, p. 49.

21. Giedion, Sigfried - Architecture you and me: the diary of development. Cambridge, Mass: Harvard University Press, 1958. pp. 30-31.

22. http://3.bp.blogspot.com/-

avqnDkdclgE/T_mmPcWeYmI/AAAAAAAAg8/QTpBaFP7FAs/s1600/photo-785144.JPG

23. http://farm4.staticflickr.com/3372/3549695778_6fe35253ca_z.jpg?zz=1

24. http://media.kickstatic.com/kickapps/images/21864/photos/PHOTO_4098241_ 21864_7964262_ap.jpg

25. http://tolemar.files.wordpress.com/2011/02/exposition-800-1937-21.jpg

26. http://www.worldfairs.info/paris37/pavillons/etatsbaltes.jpg

27. http://www.flickr.com/photos/biblarte/4995579411/in/set-72157624844432503

28. Frampton, Kenneth - **Modern architecture: a critical history**. London: Thames & Hudson, 2002. ISBN 0500202575. p. 170.

29. http://www.artexpertswebsite.com/pages/artists/artists_l-z/lissitzky/12.lissitzky.jpg

30. Tietz, Jurgen - **The Story of Modern Architecture**. Cambridge: H.F. Ullmann, 2008. ISBN 9783833147708. p. 35.

31. http://archive.benjaminedwards.net/Utopia/images/0089.jpg

32. http://en.academic.ru/pictures/enwiki/75/Krasnye_Vorota_Ext_Moscow_1950.jpg

33. www.autc.lt/Handlers/LectureHandler.ashx?fn=Rusijos+konstruktyvizmas+

(skaidr%c4%97s).pdf&id=18. p. 93.

34. http://foto.terpe.lt/inkelti/20111105/i50_taksi_parko_staybos-.jpg

35. http://foto.terpe.lt/inkelti/20111105/i50_taksi_parkas01-.jpg

36. Baltuškinas, Z.; Morozovas, L.; Saulis B.; Umbrasas A. - **Išvaduotam Kaunui 20 metų**. Kaunas: Šviesa, 1964. p. 22.

37. http://pics.livejournal.com/synthart/pic/000t2per

38. http://sovietbuildings.tumblr.com/image/22609338424

39. Drėmaitė, Marija; Petrulis, Vaidas; Tutlytė, Jūratė - Architektūra sovietinėje

Lietuvoje. Vilnius: Vilniaus dailės akademijos leidykla, 2012. ISBN 9786094470240. p. 314.

40. http://www.weheart.co.uk/upload-images/sovietmodernism6.jpg

41. Cuito, Aurora - **Antonio Sant'Elia**. Barcelona: Te Neues Pub Group, 2003. ISBN 9783823855477. p. 68.

42. Frampton, Kenneth - **Modern architecture: a critical history**. London: Thames & Hudson, 2002. ISBN 0500202575. p. 41.

43. Ibid, p. 205.

44. http://www.spazioliberocoop.it/wp-content/uploads/2010/12/Citt%C3%A0universitaria-La-Sapienza.jpg

45. Amaral, Keil - Planificação das novas Cidades Universitárias. Arquitectura: revista

de arte e construção. n.º 55-56, 2ª série (Janeiro/Fevereiro, 1956). p. 11.

46. http://25.media.tumblr.com/tumblr_m2otyc6gci1r9pn9io1_500.jpg

47.http://i.ebayimg.com/00/s/ODc3WDYyMA==/z/YvwAAMXQupJRF4NZ/\$%28KGrH

qN,!q0FEI1kZSbSBRF4NZCsI!~~60_35.JPG

48. http://farm1.staticflickr.com/187/379725895_e6a0a09d45_o.jpg

49. http://4.bp.blogspot.com/_nbq2z7LV5VM/S4QqW7Vax6I/AAAAAAABSU/

RyGqN5HtIio/s1600/F-Stuttgart-Weisenhofsiedlung.jpg

49. http://www.flickr.com/photos/isotype75/2731858762/sizes/l/in/photostream/

50. Balfour, Alan - **Berlin: the politics of order 1737-1989**. New York: Rizzoli, 1990. ISBN 0847812715, p. 71.

51. Ibid, p. 71.

52. http://1.bp.blogspot.com/_Tyk2yoqzVkE/TFwJ4uGvBGI/AAAAAAAABKM/ Yn0ovUHSvnM/s400/z.jpg

53. http://bertrandterlindeninarchitecture.files.wordpress.com/2010/03/28b-mies-vander-rohe-reichsbank-1933.gif

54. http://4.bp.blogspot.com/-3sz1O-g-TRw/UR-8Ret23NI/AAAAAAAAA(/

lkwTjc2KrWM/s320/NostalgiaForTheFutures-MiesVanDerRohe-ReichsbankExtension-Berlin-1933.jpg

55. http://ids.lib.harvard.edu/ids/view/20414211?width=560&height=560

56. http://farm6.staticflickr.com/5053/5540172267_7cbc1ce40a_z.jpg

57. http://fc05.deviantart.net/fs70/i/2012/046/b/f/zeppelinfeld_stadium_by_hashem 37927-d4pvyfs.jpg

58. http://www.amtraq.com/wp-content/uploads/2012/01/Tempelh _1955PAA_ postc650.jpg

59. http://farm4.staticflickr.com/3102/5781633622_59273ccb8f_z.jpg

60. http://sitemaker.umich.edu/artunderfascism/files/reichkanzlei_voss-strasse.jpg

61. http://classconnection.s3.amazonaws.com/113/flashcards/763113/png/great_hall 1323702537807.png

62. Igor Golomstock - **Totalitarian art in the Soviet Union, the Third Reich, fascist Italy and the People's Republic of China**. London: Collins Harvill, 2011. ISBN 0002728060. p. 368.

63. Kostof, Spiro - **The third Rome 1870-1950: traffic and glory**. Berkeley: University Art Museum, 1973. p. 34.

64. Ibid, p. 76.

65. Vale, Lawrence J. - Architecture, power, and national identity. New Haven: Yale University Press, 1992. ISBN 0300049587, p. 24.

66. http://datos.kvb.lt//images/image/2009_iliustracijos/meno_mokykla_0000-.jpg

67. Vytauto Didžiojo mirties 500 metų sukaktuvėms paminėti albumas, 1430-1930.

Kaunas : Šviesa, 2008. ISBN 9785430048846. p. 408.

68. http://datos.kvb.lt/images/image/2009_iliustracijos/teisingumo_rum.jpg

69. http://www.truelithuania.com/Nuotraukos/KaunasPhysicsFaculty.jpg

70. http://www.autc.lt/Handlers/ImageHandler.ashx?b=true&i=1359&fn=d8fe26eb-0b5b-4552-8946-6ac2d5e1123d

71. http://datos.kvb.lt//images/image/valstybes-teatras2-.jpg

72. Photograph captured by Vaidas Petrulis, 2012.

73. http://foto.terpe.lt/inkelti/20121206/i30_0.jpg

74. http://s019.radikal.ru/i638/1208/21/39f6dcaa2ad0.jpg

75. http://datos.kvb.lt//images/image/pienocentras-.jpg

76. http://s009.radikal.ru/i307/1102/b0/4bc78fbbddca.jpg

77. http://foto.terpe.lt/inkelti/20061125/36.jpg

78. Photograph captured by author, 2012.

79. http://www.autc.lt/Handlers/LectureHandler.ashx?fn=Skaidr%c4%97s.pdf&id=15, p.87.

80. http://www.autc.lt/Handlers/LectureHandler.ashx?fn=Skaidr%c4%97s.pdf&id=15, p.90.

81. http://www.autc.lt/Handlers/LectureHandler.ashx?fn=Skaidr%c4%97s.pdf&id=15, p.94.

82. http://www.autc.lt/Handlers/LectureHandler.ashx?fn=Skaidr%c4%97s.pdf&id=15, p.94.

83. Landsbergis, Vytautas - Fiziško auklėjimo rūmai. <u>Fiziškas auklėjimas</u>. Nr. 2 (1931), p. 115.

84. Fiziško Auklėjimo Draugijos delegacija pas Ekscelenciją Respublikos Prezidentą A.Smetoną. <u>Fiziškas auklėjimas</u>. Nr. 3 (1931). p. 191.

85. Landsbergis, Vytautas - **Fiziško auklėjimo rūmai**. <u>Fiziškas auklėjimas</u>. Nr. 2 (1931), p. 117.

- 87. Ibid, p. 117.
- 88. Ibid, p. 116.
- 89. Ibid, p. 116.
- 90. Ibid, p. 119.
- 91. Fiziško auklėjimo rūmai. Bangos. Nr. 19 (1932). p. 563.

92. http://www.autc.lt/Handlers/ImageHandler.ashx?b=true&i=930&fn=ca03c617-3e4b-4c74-978c-44638cf01e4c

93. Baužienė, Morta; Lagunavičius, Alfonsas; Kančienė, Jolita - Lietuvos moderno pastatai. Vilnius: Savastis, 1998.

ISBN 9986420164. p. 15.

94. Baltuškinas, Z.; Morozovas, L.; Saulis B.; Umbrasas A. - **Išvaduotam Kaunui 20 metų**. Kaunas: Šviesa, 1964. p. 30.

95. http://www.autc.lt/Handlers/ImageHandler.ashx?b=true&i=930&fn=dbb1baf7-f5a5-4ef5-afa8-33df90f1ad31

96. Landsbergis, Vyt.; Milis S. - Naujos sistemos gelžbetoninis perdengimas. <u>Technikos</u> <u>apžvalga</u>. Nr.1 (1935). p. 26.

97. http://www.autc.lt/Handlers/ImageHandler.ashx?b=true&i=930&fn=1b6cec9f-5aaf-40a7-a45d-5e73accb2724

98. KAA, f. R-1702, ap. 2, b. 139, l. 47.

99. KAA, f. R-1702, ap. 2, b. 139, l. 49.

100. KAA, f. R-1702, ap. 2, b. 139, l. 48.

101. Baltuškinas, Z.; Morozovas, L.; Saulis B.; Umbrasas A. - **Išvaduotam Kaunui 20 metu**. Kaunas: Šviesa, 1964. p. 36.

102. Drėmaitė, Marija; Petrulis, Vaidas; Tutlytė, Jūratė - **Architektūra sovietinėje Lietuvoje**. Vilnius: Vilniaus dailės akademijos leidykla, 2012. ISBN 9786094470240. p. 302.

103. Bučas, Jurgis; Minkevičius, Jonas; Kančienė, Jolita - **Kauno technologijos universiteto pastatai: istorija ir architektūra**. Kaunas: Technologija, 2000. ISBN 9986138590. p. 171.

104. Google.maps; http://www-wp.unipv.it/duniabeam/wp-

content/uploads/2012/09/Aarhus_Universitet_-_hovedbygnings_bagside.jpg
105. Google.maps;

http://upload.wikimedia.org/wikipedia/commons/1/12/Uni_Regensburg.jpg 106. Google.maps; http://antoinelinkoping.unblog.fr/files/2010/08/dscn3703.jpg

107. Google.maps; http://upload.wikimedia.org/wikipedia/commons/

d/d6/Aston_University_Lake_2010.JPG

108. Google.maps; http://farm5.staticflickr.com/4087/5102407824_b6469c1bed_o.jpg

109. http://www.archmuziejus.lt/wp-content/uploads/objects-photos/VAM-

1_Dicius/VAM-1(L-III)-S(04-03)_academic.jpg

110. http://www.archmuziejus.lt/wp-content/uploads/objects-photos/VAM-

1_Dicius/VAM-1(L-III)-S(04-03)_academic.jpg

111. Bučas, Jurgis; Minkevičius, Jonas; Kančienė, Jolita - Kauno technologijos

universiteto pastatai: istorija ir architektūra. Kaunas: Technologija, 2000. ISBN 9986138590. p. 136.

112. Ibid, p. 136.

113. http://www.archmuziejus.lt/wp-content/uploads/resized/objects/object-305_view-image.jpg

114. Drėmaitė, Marija; Petrulis, Vaidas; Tutlytė, Jūratė - Architektūra sovietinėje
Lietuvoje. Vilnius: Vilniaus dailės akademijos leidykla, 2012. ISBN 9786094470240. p. 304.

115. http://www.archmuziejus.lt/wp-content/uploads/resized/objects/object-305_view-image.jpg

116. http://www.archmuziejus.lt/wp-content/uploads/resized/objects/object-340_view-image.jpg

117. Drėmaitė, Marija; Petrulis, Vaidas; Tutlytė, Jūratė - Architektūra sovietinėje
Lietuvoje. Vilnius: Vilniaus dailės akademijos leidykla, 2012. ISBN 9786094470240. p. 305.

118. http://revistamdc.files.wordpress.com/2013/03/colegioestadualcentral1.jpg

119. Misevičius, V. - Rūmai stambiausi Kaune. Kauno tiesa. (gruodžio 27, 1969).

120. Bučas, Jurgis; Minkevičius, Jonas; Kančienė, Jolita - Kauno technologijos

universiteto pastatai: istorija ir architektūra. Kaunas: Technologija, 2000. ISBN 9986138590. p. 142.

121. Photograph captured by author, 2011.

122. http://1.bp.blogspot.com/-

123. Acciaiuoli, Margarida - **A Utopia Duarte Pacheco**. In: Fundação Calouste Gulbenkian (ed.). Os Anos 40 na Arte Portuguesa. Lisboa: Fundação Calouste

Gulbenkian, 1982 . Vol. 1. p. 48.

124. http://lh6.ggpht.com/-kcpNevcsTs4/Te3qENPAKLI/AAAAAAAHtA//Cinema-Capitlio.3_thumb2.jpg?imgmax=800

125. http://www.flickr.com/photos/biblarte/2709644957/in/photostream/lightbox/

126. França, José Augusto - **A arte em Portugal no século XX: 1911-1961**. 4th ed. Lisboa: Livros Horizonte, 2009. ISBN 9789722415835. p. LIII.

127. Ibid, p. LII.

128. http://www.igespar.pt/pt/patrimonio/pesquisa/geral/patrimonioimovel/imagem/ 13659079/

129. França, José Augusto - **A arte em Portugal no século XX: 1911-1961**. 4th ed. Lisboa: Livros Horizonte, 2009. ISBN 9789722415835. p. LVII.

130. http://www.flickr.com/photos/biblarte/2679909212/lightbox/

131. http://img139.imageshack.us/img139/1359/estadonovosa6.jpg

132. Pereira, Nuno Teotónio; Fernandes, José Manuel - A arquitectura do fascismo em

Portugal. <u>Arquitectura: arquitectura, planeamento, design, construção, equipamento</u>. n.º 142, 4ª série (Julho, 1981). p. 40.

133. http://fundacao.telecom.pt/Portals/0/Gallery/Conteudos/momentos_historia/9/ obras_publicas.jpg

134. http://www.casadaarquitectura.pt/wp-content/uploads/2010/08/1-congressonacional-Arquitc-WEB.jpg

135. http://4.bp.blogspot.com/-uxljyGjpqrE/T1-

DaYapORI/AAAAAAAAAAAACeA/ZnvjD2KnQSM/s400/cinemabatalha3017_l.jpg

136. http://www.obrecol.pt/temp/JPG_be5ca092a00a1c02f9124e31c90300f7.jpg

137. http://htmlimg3.scribdassets.com/3yr74i2xc0275lmq/images/3-e8af146a4b.jpg 138. http://3.bp.blogspot.com/-

BVKK4TYyxzc/T9nqPQSrh_I/AAAAAAAACZ8/s9EHqBNzr5A/s400/IMG_9662.jpg 139. http://ad009cdnb.archdaily.net/wp-content/uploads/2011/09/1316061356-4745513880-12b7b5d013-b-1000x708.jpg

140. http://www.snpcultura.org/fotografias/igreja_sagrado_coracao_Jesus_rui_cavaleiro _gf_20130123.jpg

141. A velha Alta...desaparecida: album comemorativo das bodas de prata da
Associação dos Antigos Estudantes de Coimbra. Coimbra: Livraria Almedina, 1984. p.
2.

142. Ibid, pp. 4-5.

143. Ibid, p. 43.

144. Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de Coimbra. Coimbra: Imprensa da Universidade, 2006. ISBN 9728704550. p. 67.
145. *Ibid*, p. 73.

146. Rosmaninho, Nuno - **O princípio de uma "revolução urbanística" no Estado Novo: os primeiros programas da cidade universitária de Coimbra 1934-1940**. Coimbra: Minerva, 1996. ISBN 9729130000. p. 106.

147. Rosmaninho, Nuno - **O poder da arte: o estado novo e a cidade universitária de Coimbra**. Coimbra: Imprensa da Universidade, 2006. ISBN 9728704550. p. 76. 148. *Ibid*, p. 80.

149. Rosmaninho, Nuno - O princípio de uma "revolução urbanística" no Estado
Novo: os primeiros programas da cidade universitária de Coimbra 1934-1940.
Coimbra: Minerva, 1996. ISBN 9729130000. p. 194.

150. A velha Alta...desaparecida: album comemorativo das bodas de prata da
Associação dos Antigos Estudantes de Coimbra. Coimbra: Livraria Almedina, 1984. p.
14.

151. Rosmaninho, Nuno - O princípio de uma "revolução urbanística" no Estado
Novo: os primeiros programas da cidade universitária de Coimbra 1934-1940.
Coimbra: Minerva, 1996. ISBN 9729130000. p. 193.

152. Amaral, Keil - **Planificação das novas Cidades Universitárias**. <u>Arquitectura: revista</u> <u>de arte e construção</u>. n.º 55-56, 2ª série (Janeiro/Fevereiro, 1956), p. 12.

153. Ibid, p. 8.

154. Ibid, p. 9.

155. Ibid, p. 6.

156. Ibid, p. 7.

157. Rosmaninho, Nuno - O poder da arte: o estado novo e a cidade universitária de

Coimbra. Coimbra: Imprensa da Universidade, 2006. ISBN 9728704550. p. 241.

158. Ibid, p. 96.

159. AUC, CUC 2009-158.

160. AUC, processo 102 da CAPOCUC.

161. Photograph captured by author, 2012.

162. AUC, processo 316 da CAPOCUC.

163. A velha Alta...desaparecida: album comemorativo das bodas de prata da

Associação dos Antigos Estudantes de Coimbra. Coimbra: Livraria Almedina, 1984. p. 41.

164. Fernandes, José Manuel - **Português suave: arquitecturas do Estado Novo**. Lisboa: IPPAR, 2003. ISBN 9728736266. p. 103.

165. FCG, LCSA 76.31.

166. AUC, processo 362 da CAPOCUC.

167. AUC, processo 611 da CAPOCUC.

168. AUC, processo 579E da CAPOCUC.

169. AUC, processo 579E da CAPOCUC.

170. http://lalgm.files.wordpress.com/2011/05/pict61371.jpg

171. http://www.eberliron.com/public/images/odessa-stairs.jpg

172. Tietz, Jurgen - **The Story of Modern Architecture**. Cambridge: H.F. Ullmann, 2008, ISBN 9783833147708. p.35.

173. Photograph captured by Joana Orêncio, 2013.

174. A velha Alta...desaparecida: album comemorativo das bodas de prata da

Associação dos Antigos Estudantes de Coimbra. Coimbra: Livraria Almedina, 1984. pp. 28-29.

175. Rosmaninho, Nuno - O princípio de uma "revolução urbanística" no Estado Novo: os primeiros programas da cidade universitária de Coimbra 1934-1940.

Coimbra: Minerva, 1996. ISBN 9729130000. p. 243.

176. http://t1.gstatic.com/images?q=tbn:ANd9GcS2UtPLd3MbdOi4eWkF84cUTgTDd60 IeP2fDc1aSb_5SAc09Fs&t=1

177. Rosmaninho, Nuno - O princípio de uma "revolução urbanística" no Estado Novo: os primeiros programas da cidade universitária de Coimbra 1934-1940.

Coimbra: Minerva, 1996. ISBN 9729130000. p. 244.

178. http://www.monumentos.pt/Site/APP_PagesUser/Images/SIPAImage.aspx?pid= 306678

179. http://www.monumentos.pt/Site/APP_PagesUser/Images/SIPAImage.aspx?pid= 306677

180. **Cidade Universitária de Coimbra : instalações académicas**. Coimbra: Comissão Administrativa do Plano de Obras da Cidade Universitária de Coimbra, 195?. p. 6.

181. Ibid, pp. 16-17.

182. Mendes, Rui Manuel Vaz - Instalações académicas de Coimbra. Coimbra: [s.n.],
2004. Prova final de licenciatura, Department of Architecture at the Faculty of Science and Technology, University of Coimbra. p. 51.

183. Ibid, p. 52.

184. Ibid, p. 53.

185. Ibid, p. 54.

186. Ibid, p. 55.

187. http://www.flickr.com/photos/biblarte/8135399871/

188. http://www.google.pt/url?sa=i&source=images&cd=&docid=JxD4gPdJoFOJiM& tbnid=LyMvAJCjXSfMpM:&ved=0CAUQjBwwADgK&url=http%3A%2F%2Fwww.them odernist.co.uk%2Fwp-content%2Fuploads%2F2012%2F03%2F01.03_Le_Corbusier_ Unite_dHabitation_Marseille_1945-52_lange_zijde_337_woningen.jpg&ei=GkD7UYD UE6rC7AaGz4CIAQ&psig=AFQjCNHDkF2CumW6VR6UGSGYdSOIPJj7Ig&ust=1375 506842375666

189. http://wikiarquitectura.com/es/images/5/5d/Escuela_Hunstanton_4.jpg

190. http://farm9.staticflickr.com/8330/8135425446_cbae08fc50_o.jpg

191. AUC, processo 698 da CAPOCUC.

192. AUC, processo 698 da CAPOCUC.

193. http://www.flickr.com/photos/biblarte/8135389373/in/set-72157623453736545/

194. http://www.flickr.com/photos/biblarte/8135422056/in/set-72157623453736545/

195. http://www.flickr.com/photos/biblarte/8135412704/in/set-72157623453736545/

196. http://www.flickr.com/photos/biblarte/8135392411/in/set-72157623453736545/

197. http://www.flickr.com/photos/biblarte/8135410582/in/set-72157623453736545/

198. http://www.flickr.com/photos/biblarte/8135412296/in/set-72157623453736545/

199. Kruger, Mário - **Leslie Martin e a Escola de Cambridge**. Coimbra: Departamento de Arquitectura da Faculdade de Ciências e Tecnologia, 2005. ISBN 9729738394. p. 44. 200. *Ibid*, p. 45.

201. Mendes, Rui Manuel Vaz - **Instalações académicas de Coimbra**. Coimbra: [s.n.], 204. Prova final de licenciatura, Department of Architecture at the Faculty of Science and Technology, University of Coimbra. p. 192.

202. Kruger, Mário - **Leslie Martin e a Escola de Cambridge**. Coimbra: Departamento de Arquitectura da Faculdade de Ciências e Tecnologia, 2005. ISBN 9729738394. p. 43.

- * All websites were accessed on July 20th 2013.
- ** KAA Kauno apskrities archyvas (Kaunas city archive).
- *** AUC Arquivo da Universidade de Coimbra.
- **** FCG Fundação Calouste Gulbenkian.