

## **FROM DYSFUNCTION TO FUNCTIONALISM: THE EVOLUTION OF MILITARY CONSTRUCTION IN THE INTERWAR PERIOD POLAND**

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### **A b s t r a c t**

The purpose of the article is the general characteristics of military residential architecture built in the 1920s and 1930s in the 2nd Polish Republic. In the newly restored Poland the most pressing problem was the improvement of the housing conditions of the population. The military, who contributed the most to the reinstating of independence held special privilege with the state officials. Therefore, the problem of their quartering was resolved with utmost preference. After an unsuccessful period of trial and error with traditional and light timber frame construction the government addressed this problem systemically establishing the Military Accommodations Fund with a dedicated budget for creating typified, repeatable solutions. The MAF commissioned specific designers, held open as well as limited competitions and hired a cadre of architects and engineers to come up with designs that could rapidly and cost effectively replenish the housing base with functional, hygienic solutions. Because the MAF was well funded, the most prominent polish modernist architects readily cooperated with the organization making Polish interwar *architectura militaris* an engine of modernization.

Keywords: modernist architecture, Military Accommodations Fund, military housing

### **1. INTRODUCTION**

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The Merriam-Webster dictionary provides the following definition of disfunction: “1: impaired or abnormal functioning” or “2: abnormal or unhealthy interpersonal behavior or interaction within a group”. In the light of the above is justified to say that the quartering conditions of the army personnel in the initial post 1st World War years were dysfunctional [15]. In 1918 Poland was restored as an independent state on lands that were historically Polish but for 123 years were developed by occupying forces of Prussia, Austria and Tsarist Russia. These lands were subjected to *damnatio memoriae* through Germanization and Russification. After WWI the newly established Republic of Poland repaired war damage, in the process striving to modernize and consolidate the country after a century of tripartite partitions. The military contributed the most in regaining the independence. They won special privilege with the state officials and held most important offices in governing bodies, including the seat of First Marshall Piłsudski and the President of the National Holding Bank gen. Górecki. However, in the immediate post-war period the garrisons had to lodge themselves into historical barracks. Polish troops were not discharged immediately after the end of the First World War. The Russo-Polish war ensued, forcing the troops to keep using the outdated Tsarist, Austrian and Prussian barracks and requisitioned property until the Riga Treaty of 1921. Since then the government began reorganizing and demobilizing enormous forces engaged in the independence spurt. The garrisons had to be established *de novo* and the personnel did not have lodgings from the pre-war times. This led to difficult housing conditions affecting the officers and the NCO's. There were neither barracks nor flats readily available in the garrison cities, further complicating reassignment of troops. The officers and the NCO's were forced to look for quarters on the free market among accommodations severely reduced by war. Soldiers were numerous and the perceived threat to Polish nationality substantial, therefore a significant portion of interwar period public investments went to military housing, military health and recreation facilities, barracks and infrastructure. The military, who contributed the most to the reinstating of independence, held special privilege with the state officials. The Fund commissioned chosen architects and held open as well as limited competitions. Gradually through subsequent competitions and the example of selected investments, MAF established standards for typical officers and NCO's apartments. Improvements in the new type of dwellings and barracks were twofold. First of all the MAF strived to reduce cost of construction and maintenance. Designers took great care to ensure fire safety and to minimize the need for repairs, using novel (at that time) material solutions, such as reinforced concrete beams and flat-roofs instead of timbered ones. Second they improved floor plans and building layouts for cross-ventilation and optimal insolation. Surveys conducted among military family members prior to and after settling the newly constructed buildings helped elaborate standards that were hygienic and

economically accessible to army personnel, and adhered to the way of life led by them. All this had led to gradual shedding of redundant ornamentation. If we consider the formal definition of functionalism, as a philosophy of design holding that form should be adapted to use, material, and structure; a doctrine or practice that emphasizes practical utility or functional relations [14]. All the above-mentioned processes resulted in bringing the military investments in line with functionalism.



Fig. 1. Officers' casino in Warsaw-Rembertów, built in 1922–1924 according to the design of the architects K. Mieszkis and R. Miller (elaborated from *Domy Mieszkalne Funduszu Kwaterunku Wojskowego Sprawozdanie 1930-1933*, Warszawa 1934, p 129)

## 2. RESEARCH METHOD AND LITERATURE

### 2.1. General overview of literature on the subject

The aim of the research described in present study is the development of a synthetic chronology and description of phases in the evolution of typical army housing in the Second Polish Republic. The text also presents the description of elaborated objects. A chronological analysis of stylistic changes in military investments (sensitive, as they were related to building the ethos of the Piłsudski Legions [13]) shows how the evolution taking place in society was reflected in the field of architecture. The problem of the political nature of patronage in modernist architecture between the wars was noticed not only in relation to Polish [27], but also foreign soil [9].

The literature on military quartering facilities is extensive but dispersed. These are both source materials (printed FKW reports) and research studies. The state of the research on military architecture of the interwar period is currently not very advanced. Apart from overview studies [2, 19, 23] in which *architectura militaris* appears on the margins of other considerations, there are few synthetic articles devoted exclusively to this subject [24, 25], and none of them so far observing stylistic development. Although, in recent years interwar architecture has been a frequently undertaken research topic, it has not translated into a comprehensive monograph on military architecture of that period. Single buildings appear in monographs and articles dealing collectively with the architecture of the interwar period [18, 22] as well as describing the work of specific architects [12, 31], whose work dates back to the 1920s and 1930s. The

interwar architecture of cities especially important to the national ethos, such as Warsaw and Gdynia, is regularly elaborated and relatively well described, but often in the context of the activities of specific architectural personalities or groups [3, 7]. There is a visible tendency to identify the development of architectural thought with the avant-garde as a progressive agent, emphasized by the analysis of architectural icons. This frequently leads to negligence of standard and repetitive solutions on which military investments were based. It was this gap that prompted me to take up the topic of formal and functional changes in the military architecture of the interwar period. The analysis of the state of the research allows for the following conclusions:

- military architecture played an important role the development of Poland in the interwar period, due to the fact, that the army was an important element in the Polish propagandist agenda inciting patriotism
- to consolidate lands partitioned over the course of 100 years, a national style was sought after [26]
- the Military Accommodations Fund had at its disposal large funds for realizing significant investments in housing, becoming an ideal tool for spreading this national style
- competitions were held to establish this national style, at specific examples
- ultimately the investments of the MAF produced some of the finest examples of functionalism in Polish architectural history.

There is a lack of studies on the evolution of national style and no explanation for modernism becoming the relied on and regularly turned to style, the go-to architecture of the Second Polish Republic. This study fills this research gap.

## **2.2. Materials and methods**

The analysis is based on a case study methodology, archival and literature query and in situ personal objects recognition – tools innate to analytic research of historic objects. The research process was conducted in stages. The initial stage encompassed literature studies, identification of specific objects, archival query of source material and research of current status of the buildings. In selected cases of existing buildings site visits and observations on the spot were conducted. Acquired designs were analyzed for composition, spatial relations within complexes, stylistic of architecture, analogies between designs. These were then chronologically categorized and analyzed on the backdrop of European tendencies and theories of their time.

### 3. MILITARY ACCOMMODATION IN THE YEARS 1921-1927

#### 3.1 Emergency investments in eastern garrisons

There was less infrastructure in the eastern garrisons, so it was decided to develop them first. To perform the above task, the Construction Commission for the construction of officers and non-commissioned officers houses in the eastern areas was created in 1923. It reported directly to the head of the Department of Combat Engineering and Sappers and had special credits for the implementation of its plans. Taking into consideration the expected cost and speed of construction, it was decided to build wooden houses of two basic types: single-family and semi-detached houses. The choice of typical buildings was to enable their cost effective mass production, to facilitate the control of execution, and finally to simplify the accounting. However, the goal of delivering ready-made housing in borderland garrisons within one season has not been achieved. The construction dragged on for the next year, and in some localities two years. During its existence, the Commission built 107 apartments. These houses were built in Biała Podlaska, Łuków, Kowel, Dubno, Równe, Chełm, Kielce, Stanisławów, Sokółka, Grodno, Mołodeczno and Nowa Wilejka. These buildings usually utilized vernacular stylistics[11].



Fig. 2 Marian Lalewicz, Officers' house in Gdynia (source National Digital Archive, sygn. 3/1/0/7/1956/3)

#### 3.2 Reactionary national traditionalism in military construction

Apart from this emergency building campaign of wooden residential houses, the army at the same time carried out the construction of brick residential buildings

in a number of garrisons. Acting on first impulse, the authorities utilized national traditionalism as the main style for new investments. It was an exceptional period in many respects. Warsaw was reestablished as the capital of an independent state and needed new edifices to house modern administrative office. Poland regained access to Baltic Sea and began building a port city in *cruda radice* - Gdynia. That is why it is mainly in Gdynia, Warsaw and large garrison cities that the most examples of this “manorial style” can be found. At first the designs were traditional, adhering to a historicizing stylistics, such as the military housing estate and the officers' casino in Warsaw-Rembertów, built in 1922–1924 according to the design of the architects K. Mieszkis and R. Miller. (Figure 1) The representatives of the style in Gdynia and its vicinity are the Fleet Command Complex with the Navy Barracks (Figure 2) in Oksywie (M. Lalewicz, 1926-31) and the first military holiday home in Cetniewo, the so-called White Manor (Figure 3); while for example in Poznań Ławica we find the NCO's apartment building (A. Piller, 1923). Economic collapse in the year 1925 froze all investments and they were picked up only in July 1927 on behalf of a newly established Military Accommodations Fund [5].



Fig. 3 White Manor in Cetniewo (source National Digital Archive, sygn. 3/131/0/-/309/16)

The popularity of old-fashioned stylistic was in part due to poor industrialization of the country [8]. Unlike the more modern techniques (prefabrication) and materials (steel), the more traditional building techniques, like bricklaying, roofing and thatching were readily available. Practically up until 1927 essential military construction was executed in historicizing styles. On the occasion of an exhibition celebrating 15 years of Polish military construction in an independent state, Aleksander Król called it the unsuccessful trial and error period with historical styles.



Fig. 4. Airport Commander Headquarters AiB; (elaborated from Aleksander Król, *Budowle zabytkowe w wojsku*, "Architektura i Budownictwo" 1933, no. 10–12, p. 334)

#### 4. THE MILITARY ACCOMMODATIONS FUND

Numerous factors contributed to the fact, that around 1927 Modernism was introduced into military construction [10]. In the Ministry of Military Affairs (MMA), construction matters were handled by the Department of Construction. It dealt with all engineering matters: housing construction, defensive construction, combat engineering and sappers. Its duties covered building bridges, stables, airplane hangars, as well as apartments. In the period from 1918 to 1928, the District Command's Commissions of Combat Engineers and Sappers prepared designs and cost estimates for new buildings. In the years 1928-1930 the Department of Construction set up its own Central Design Bureau, hoping to speed the design process up, cut costs and produce repeatable, economical solutions. It was to develop projects not only for the land forces, but also for the

Navy. In the beginning of its existence, the Design Bureau in the Construction Department of the Ministry of Military Affairs tried to perform all the designing activities itself [11 p. 246]. Faced with the need to realize not only military constructions, but also wide variety of housing and recreational designs, the Bureau hired civil engineers and architects e.g. F. Lilpop or E. Norwerth. In 1925 the government established the Military Accommodations Fund (MAF) in an effort to consolidate and systematize the investment process concerning military housing demand. It was the enacting and controlling body of the investment process. Renowned designers were engaged in the works of MAF as well, e.g. A. Dygat, Cz. Przybylski, T. Tołwiński [4 p.26] and the director engineer L. Toruń, who later became the director of the Department of Construction in the MMA. The Fund was granted a budget of 140 million Polish zloty. However, it was not until 1927 that the Fund started effectively operating and it turned out that the assigned money devaluated by  $\frac{3}{4}$  up until that time.

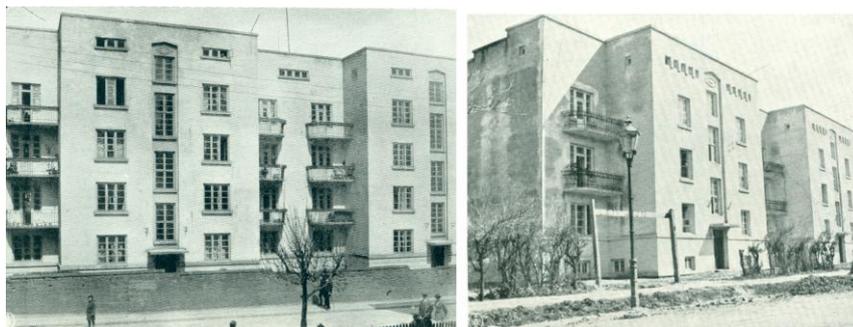


Fig. 5. The typical apartment building for officers' and NCO's designed by W.Padlewski in 1928 – in Stanisławów (right) and in Przemyśl (left), (elaborated Sprawozdanie Funduszu Kwaterunku Wojskowego 1927 — 1930, Warszawa 1930)

For that reason, the financial issues came to the forefront among the factors determining the standard of the developed residential solutions. The aim was to create a uniform type of a functional yet inexpensive residential building with standardized apartments and a repeatable design for hygienic barracks. One of the mottos of the organization was to provide sunlight, water supply, sewage systems and bathrooms in all apartments. This requirement for hygiene and the strict economic requirements naturally put military construction on the path of Modernism. Modernism was also deprived of any historic connotations and internationally popular, making it the ultimate tool of Europeanization – reducing evolutionary dissonance between Poland and Western Europe in economy, science and the standard of living. This also implied improvement of public health, tarnished after years of war-induced negligence, poor hygiene, malnutrition and no access to physicians. General conscription system also meant the necessity of

mending the health of future draftees. Therefore, the MMA was tasked with establishing a public physical education system combined with defense training. The institutes for physical education, dispersed throughout the country, were supervised by a Central Institute in Warsaw built to the design of Edgar Norwerth. This also led to the construction of a network of military holiday homes, sports facilities, sanatoriums and hospitals. A brief outline of the timeline gives an idea of the intensity of military investment. In the years 1927-1934, the MAF reported construction of 542 houses and the report for the years 1927-1937 re-counted 897 houses [6], constituting 355 houses in just three years!

## 5. IN SEARCH OF THE HOUSING FOR THE OFFICERS AND NON-COMMISSIONED OFFICERS

The size of all rooms was determined by the ordinance of the Council of Ministers of 1927 (Dz.U. 1927 r. 81 poz 705). The apartment for the corporal was to consist of a room and a kitchen with an area of 30 sq m. The apartment of the senior non-commissioned officer was to consist of two rooms and a kitchen with an area of 50 sq m. Bathrooms shared by non-commissioned officers were to be located in the basement or in the attic. The apartment of junior married officers, including the captain, was to consist of 3-rooms, a bathroom and a kitchen with a total area of 90 sq m. The lieutenant colonel and major were entitled to an apartment consisting of 4 rooms, a kitchen and a bathroom with an area of 120 square meters [4, p.25].



Fig. 6. The residential block for officers in Lwów, M. Nikodemowicz in 1928 (elaborated from *Domy mieszkalne Funduszu Kwaterunku Wojskowego*, 1937)

Throughout its existence that is between 1928 and 1930 the Design Bureau of the Department of Construction developed typical building solutions for an infantry battalion, command, regimental kitchen with a dining room, air hangar, garage, warehouses, stables, riding schools. However, each time these projects required adaptation to local conditions, losing the character of typical solutions, which at the same time increased investment costs [11, p. 248]. The Bureau was therefore liquidated in 1931.

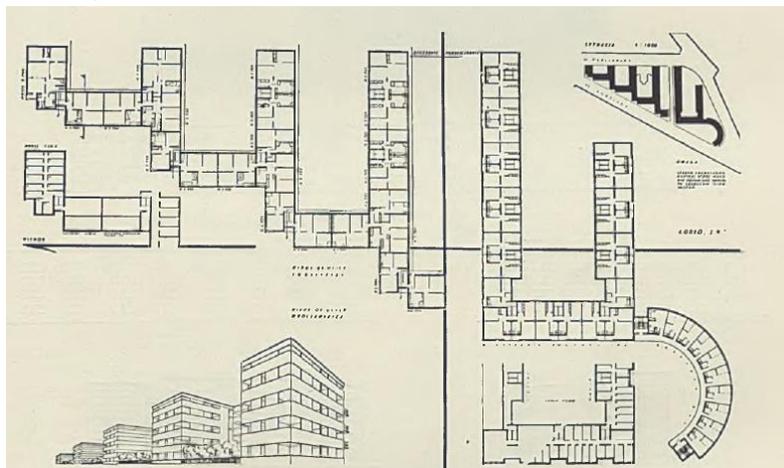


Fig. 7. Competition entry by B. Lachert, J. Szanajca and W. Winkler for the complex of officers' and NCO's houses in Krakow; I prize (elaborated from 'Architektura i Budownictwo', vol. 5, no. 2-3 (1929))

Seeking for the best solutions for officers' and NCO's apartments, the Fund carried out several open competitions. First of the competitions took place in 1928 and gathered 37 entries for the design of a repeatable officer's apartment building. First prize was awarded to Wł. Padlewski [32, p.74].The design he submitted was traditionalist with expressionist features adorning the façade of the staircases (Figure 5). According to the competition guidelines, the building had three floors, which was to guarantee the economics of the investment process. Each section consisted of two 3-room apartments (65.9 m<sup>2</sup>), making this solution almost luxurious. The competition for a noncommissioned officers building amassed 25 entries, with B. Lachert, J. Szanajca and W. Winkler, winning the first prize with a fairly traditional design. Nonetheless, these competitions had a particularly good urbanizing influence, allowing for multiple use of a verified design in several underdeveloped garrisons. Till the end of 1930 Padlewski's design for officers house was implemented in Stanisławów and Przemyśl, and Lachert's design for NCO's house in both Kowle and Stanisławów.

Renowned as well as tried out designers were sometimes invited to limited competitions for the development of specific plots. In 1928 the Fund held a

competition for a design of an apartment building for officers in Lwów. This early competition produces a simplified yet traditionalist project by M. Nikodemowicz and W. Sawczyk. (Figure 6) The winning entry was a 5-story, 3-winged building with an arched passageway to the court, decorative cartouches and a high pitched-roof [12, p.93]. The architects strived for simplification and cost effectiveness by composing the façade of evenly spaced rows of identical windows. The jury criticized the layout of the sections in the side wings – located on the east-west axis (ultimately unrealized) – with respect to the cardinal directions. The judges were also disappointed with the lack of modular standardization of building elements, such as floor beams etc. that could speed up the construction process.

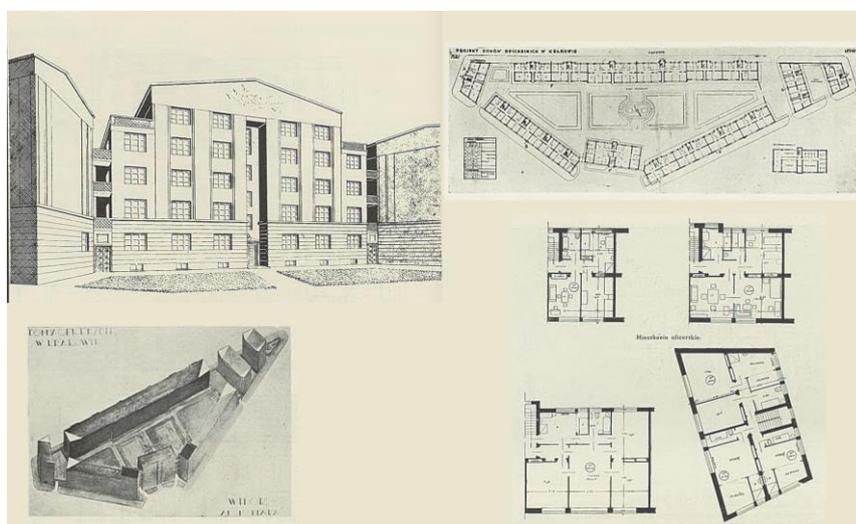


Fig. 8. Competition entry by B. Handelsman-Targowski for the complex of officers' and NCO's houses in Krakow; II prize (Adapted from 'Architektura i Budownictwo', vol. 5, no. 2-3 (1929))

Nonetheless, in these initial competitions, the jury still stood by the conservative tastes. These, however changed gradually. Grand Prix of an open competition for the complex of officers' and NCO's houses in Krakow was awarded to B. Lachert, J. Szanajca and W. Winkler. (Figure 7). They presented a functionalist design based on a principle of *Zeilenbau* (row-house). This had just been developed [28] in Weimar Republic and was widely used for the designs of new, hygienic housing districts for the working masses[1]. In Poland, this pattern was taken up amongst other by the Warsaw Housing Cooperative in Rakowiec, drawing on the knowledge of the Polish section of CIAM, in the form of members of the "Praesens" group [21]. Still, it was the project by B. Handelsman-Targowski (which won the second prize) that was selected for implementation (Figure 8),

perhaps due to its simplified and disciplined architectural form in the style of modernist historicism. Similarly, in the case of a contest for military housing in Bielsko, B. Lachert, J. Szanajca and W. Winkler submitted a winning functionalist design, which was nevertheless omitted in implementation in favor of a traditionalist design by A. Wiederman. The winning entry was an outstanding (Figure 9) example of the internationally popular so called *Streamline* style, so amply represented in Gdynia at that time [29]. However, it seems that the jury catered to the more traditional tastes of its residents, which – in the best traditions of interwar housing cooperatives – were researched vis surveys [4].

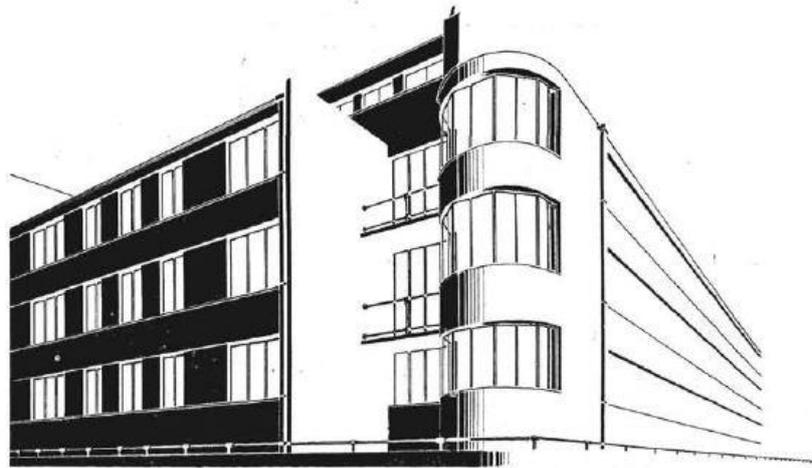


Fig. 9 Competition entry by B. Lachert, J. Szanajca and W. Winkler for the complex of officers' and NCO's houses in Bielsko; I prize (elaborated from 'Architektura i Budownictwo', vol. 5, no. 2-3 (1929))

However, a new day was dawning for military construction due to an ongoing modernization in the worldview amongst architects. Around 1925, there was a radical turn towards modernism in Polish civil architecture, connected with the emergence and activity of avant-garde artistic groups. It influenced mostly the younger generation of architects, graduates of the Faculty of Architecture of the Warsaw University of Technology. Gradually, the older generation of architects from the "Warsaw school" succumbed to the postulates of functional architecture proclaimed by the avant-garde. The 1<sup>st</sup> International Exhibition of Modern Architecture, organized in February 1926 in Warsaw, contributed to the creation of the Polish theory of social housing and the search for ways of its practical implementation. The development of architectural theory in the II Polish Republic was accompanied by significant phenomena taking place simultaneously in the European arena. The notions of the European housing reform movement began to

penetrate into Poland, propagated in the form charters and guidelines of subsequent international CIAM congresses, starting with the convention in La Sarraz in 1928 until the Fourth Congress in Athens in 1933. Creative groups “Blok” (established 1924) and “Praesens” (established 1926) promoted international style, functionalism and constructivism [17]. In 1933 the Ministry of Military Affairs hired over 50 young architects who brought the fresh ideas with them. The military construction initiative attracted architects because the state-owned investor, when carrying out a prestigious task, did not save on salaries [16]. When in 1934 all over Poland wages of designers and construction managers were reduced by 20%, the Ministry of Military Affairs kept them unchanged, assuming that cost cutting should be achieved through a rationally developed design and proper construction supervision [11, p260]. Among architects who worked in FKW or designed for the Fund were amongst others T. Michejda, Cz. Przybylski, B. Lachert, J. Szanajca, R. Gutt, J. Jankowski.



Fig. 10 Officers' tenement building in Wiśniowa in Warszawa, R. Gutt and J. Jankowski, 1929 (elaborated from *Domy Mieszkalne Funduszu Kwaterunku Wojskowego Sprawozdanie 193-1933, Warszawa 1934*)

In 1929 first truly functionalist designs appeared in the form of R. Gutt and J. Jankowski's design for officers tenement building in Wiśniowa in Warszawa (Figure 10). The functionalism begun appearing in the province too, e.g. Tołłoczko's designs for Bielsko, Brześć and Bydgoszcz. All those designs attempted to produce an ergonomic, healthy and cost-effective, and at the same

time esthetically pleasing layout that could, with minimum effort, be adapted to local conditions [24]. It was exactly the modernist architecture with its popular and democratic overtones that could be an effective tool to promote unifying national and state-building ideology [30]. The new design method is visible not only in the shaping of cuboidal edifices, enriched only with characteristic balconies or tectonic decoration, with complete rejection of historical details. (Figure 11) It is most evident in thinking about housing construction in the category of using repeatable segments of a frame structure filled with functionally planned interiors. Modularity links with functional zoning of rooms. Residential sections are divided into two-bay flats (for cross-ventilation) are located, if possible, on the north-south axis (for favorable insolation). Kitchens, toilets and housemaid's rooms present in the architecture of the interwar period (in apartments intended for wealthier owners) are usually grouped at the entrance area. The dining and living rooms were located near the kitchen, while the bedrooms were located at the back of the apartment. (Figure 12)

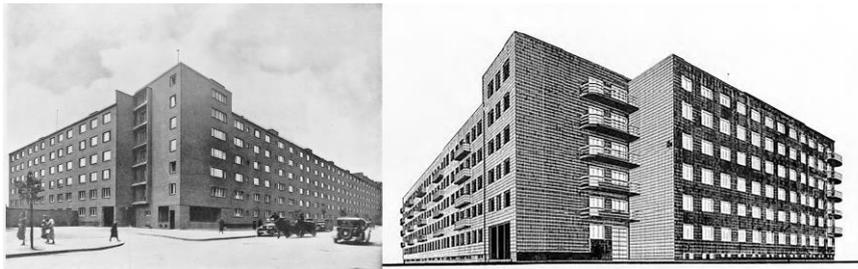


Fig. 11 A juxtaposition of the two houses in block at Koszykowa/Sucha, Warsaw; left the block designed by Romuald Gutt and Józef Jankowski (at the side of Koszykowa), right block designed by Jan Reda (at the side of Sucha) (elaborated from *Domy Mieszkalne Funduszu Kwaterunku Wojskowego Sprawozdanie 1930-1933. Warszawa (1934)*)

The army oversaw large plots, suitable for the creation of harmonized districts with a coherent architectural concept. The military construction of this period was characterized by the tendency to integrate complexes newly designed by MAF into the existing streetscapes. This tendency is illustrated e.g. by the NCO housing complex at Praga district in Warsaw, designed by Cz. Przybylski [4]. The plot was developed along the perimeter. On the side of the Targowa Street, however they formed an open courtyard, (Figure 13) integrating the complex with its neighbourhood. Similarly, the development plan for the area included in the quarter between Topolowa, Nowowiejska, Sucha and Koszykowa Streets, implied a quarter developed residentially along its outline with detached office buildings in the centre of the plot.

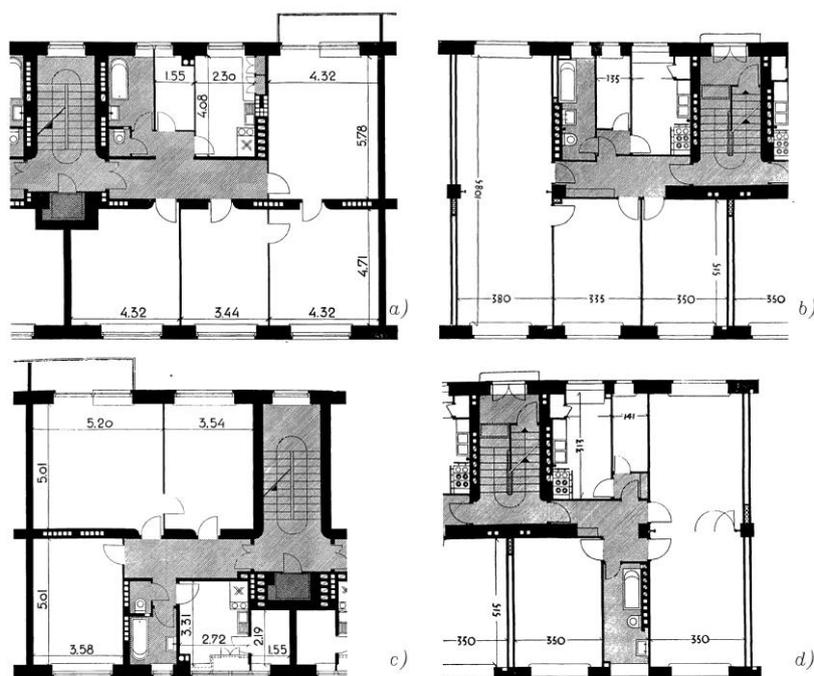


Fig. 12 A juxtaposition of the two houses in block at Koszykowa/Sucha, Warsaw; left the block designed by Romuald Gutt and Józef Jankowski (at the side of Koszykowa), right block designed by Jan Reda (at the side of Sucha) (elaborated from *Domy Mieszkalne Funduszu Kwaterunku Wojskowego Sprawozdanie 1930-1933. Warszawa (1934)*)

Attempts were made to include the interior of the quarter in the street composition through a wide entrance. Unfortunately, neither the nature of the buildings on the opposite side of N-S thoroughfare, belonging to the University of Technology, nor the height of these buildings were specified in the land development plan at the time of the construction of the military quarter. Therefore, it was not possible to refer to it or consciously strive to achieve architectural harmony on the section of the adjacent thoroughfare [11, p.465]. The planned improvement of nation's health also covered mental well-being. Therefore, the projects were not limited only to the development of buildings. They involved the development of the entire surrounding of residential complexes, in a belief that the aesthetics affect the psyche of residents. Many designers endeavored to create inner courtyards while still maintaining development along the N-S axis for better insolation. The courtyards were furnished with sports and leisure amenities: tennis courts, shallow pools and fountains, playgrounds, *bosquets* and statues.

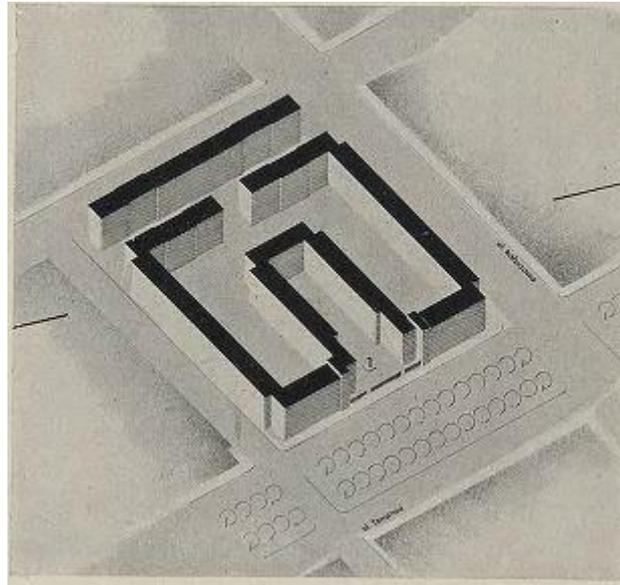


Fig. 13 Axonometry of the NCO housing complex at Praga district in Warsaw. (Adapted from Aleksander Król, *Budownictwo wojskowe w latach 1918–1935*, vol.I, Warszawa 1936, p. 466)

## 6. STUDY RESULTS AND CONCLUSION

### 6.1 Direct study results:

Based on the state of the research it was stated that the military architecture played an important role the development of Poland in the interwar period. The army was an important element in the Polish propagandist agenda inciting patriotism. To consolidate lands partitioned over the course of 100 years, a national style was sought after. The Military Accommodations Fund, an organ of the Ministry of Military Affairs, financed by a special act, had at its disposal large funds for realizing significant investments in housing, becoming an ideal tool for spreading the national style. Competitions were held to establish this national style, at specific examples.

Present study shows, that as a reliable source of income and a prestigious endeavors, both the renowned architects as well as young members of the avant-garde sought after both limited and open competitions as well as jobs at the Design Bureau in the Construction Department of the MMA. They belonged to the most progressive architectural associations and consorted with chief designers and theorists of their time. The designers relied on surveys to study their future users daily chores and preferences. The style in which they designed was functionalism

based on utility of space and physiology of human body and therefore cosmopolitan. Adhering to the principles of speed in construction, cost effectiveness and hygiene ultimately, the investments of the MAF produced some of the finest examples of functionalism in Polish architectural history, permanently entering the canon of interwar modernism. They were then reproduced in provincial voivodeships contributing to their modernization and effective visual unification of the country. Modernism, employed for reliably good results, became the architecture of the Second Polish Republic.

## **6.2 Conclusion**

After regaining independence the most pressing problem in the II Polish Republic were the consolidation of previously partitioned lands and the improvement of housing conditions of the population. In the immediate post war period a style referring to the domestic, provincial manorial architecture from before the partitions seemed most appropriate for government investments, including military construction. Its primary significance was repolonization. However, it was ill suited to becoming a mean of modernization, and since the 1920s, the Polish Army was also a part of national policy of modernization. International notions in the field of hygienic and economic housing infiltrated into Polish design. Supported by the transition in Polish mentality: from reactionary (reassuring the repolonization of the country) to progressive (propelling Poland towards achieving European level in economy they gradually bore fruit of avant-garde Modernism. This transition can be clearly traced on the example of the evolution of military housing. Military Accommodations Fund enjoyed public financing and continuously built new housing districts since its conception in 1927 up until 1937, supplying 897 houses in under 10 years.

As works of architecture, the resulting military complexes and individual buildings are characteristic, often outstanding examples of changes taking place in Polish architecture during the first half of the 20th century. They reflect the ongoing progress in Polish mentality [20] and evolution in perception of patriotism. First edifices designed in the immediate years after regaining independence, referred to the tradition of Polish historical architecture. Transitional period witnessed the simplification of forms and modernization of classic compositions. Since 1933 when MAF begun employing young graduates of Warsaw Polytechnic innovative, modernist designs derived on structural and functional premises, based on modern material, construction and composition solutions started dominating military construction. It should be emphasized that the new functional layouts incorporated improvements introduced in the dwelling houses by the most progressive and avant-garde building cooperatives and associations, the likes of the “Werkbund” movement, CIAM or Warsaw Housing Cooperative (WSM).

## ADDITIONAL INFORMATION

The research was financed by the National Science Center: 2018/31/D/HS2/03383.

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*Editor received the manuscript: 05.09.2022*