

Standards of Housing for Rent Built by Municipal Social Building Society in Bialystok (Poland) during 1996 - 2012

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Abstract. The period of economic transformation in Poland started from 1989 and resulted in significant changes on the housing market. Flats became goods and process of privatizing of the housing market took place in last decade of the 20th century. It became clear, that it was necessary to create the system of housing for the people who cannot afford to buy the flat on free market. Such solutions were implemented in 1996 and since then affordable housing associations started coming into existence – organizations building flats for rent, supported by city and government budget. Large complex of such housing for rent was built in Bialystok, the major city of north-eastern Poland, and it is regarded as one of the biggest in the country. The purpose of the study is characteristics of the contemporary social housing for rent in Bialystok, as good example of that kind of housing realized in Poland. The author uses a kind of parametrical method and analysis some aspects of housing environment: the urban concepts of housing developments, architectural ideas, standards of flats, and also solutions of parking places, road systems and access to basic services, including recreational areas. He gets factors of housing standards as a final result.

1. Introduction

The period of economic transformation in Poland (the biggest country of centre-eastern Europe) started from 1989 and resulted in significant changes on the housing market. Flats became goods and process of privatizing of the housing market took place in last decade of the 20th century. After a few years of economic changes, standards of new apartments diversified, a section of luxury flats appeared, gated communities became very popular. We built some housing estates which we can regard as icons of the residential architecture in Poland (e.g. Marina Mokotow in Warsaw, City of Wilanow, etc.). In these projects, realizing mainly by private investors, we can found some neoliberalism philosophy accompanying with neomodernism spatial solutions or concepts coming back to the city space of 19th century [1]. It became clear, that it was necessary to create the system of affordable housing for the people who cannot afford buying the flat on free market. Such solutions were implemented in 1995 and since then affordable housing associations – Social Building Societies - started coming into existence – non-profit organizations building flats for rent (a kind of social housing), supported by city and government budget. The complex of such housing for rent was built also in Bialystok and it is regarded as one of the biggest in Poland (contains a few thousand flats). In



the paper the term “social housing for rent” will be also replace by “affordable housing”, as these both expressions refer to the same kind of housing in Poland.

The method using in that study is called parametrical and includes several factors describing quality of housing environment. That means analyses of urban composition of complexes, solutions of wheeled and walking transport, spatial concepts of surroundings, semi-public space, recreational space, the access to the social services, architectural concepts and standards of apartments.

2. Characteristics of housing for rent by the Bialystok Municipal Social Building Society

Municipal Social Building Society (in Polish - KTBS) in Bialystok was created as a limited liability company by a resolution of the city council at 28th of October 1996¹ [2]. The aim of that company was providing possibilities of realizing housing needs for families which cannot afford purchasing own flat or a house, realizing by the construction of dwellings for rent characterized by affordable charge. The field of activity Municipal Social Building Society in Bialystok can moreover spread to: purchasing residential buildings, conducting repairs and modernizations of objects transformed to affordable housing for rent, renting usable floor spaces designed and owned by the Society for services or business activities, managing and maintaining housing buildings constructed and owned by the Society, construction of housing buildings and the accompanying infrastructure.

The limited liability company is carrying the housing policy of the authorities of the city of Bialystok, building affordable flats for rent for families with low income. It builds thanks to money coming mainly from the outside, as the long-term credits of low interest from the National Housing Fund, supported by national bank and government. Municipal authorities cover about 15 % of such investments : it contains of a value of the area transferred to Municipal Social Building Society and some money for the beginning of investment. Achievements of Municipal Social Building Society in Bialystok during 15 years of activity are impressive. The company constructed until the end of 2009 about 2292 dwellings, and 2169 of them in one district of the city – called Bacieczki [3]. Another next 312 flats have been already planned (waiting for the building permit). In the scale of the entire country of Poland it determines 3% of the whole number of 80 thousand of dwellings realized by such Societies in the frame of that kind of affordable housing for rent from 1996) [4].

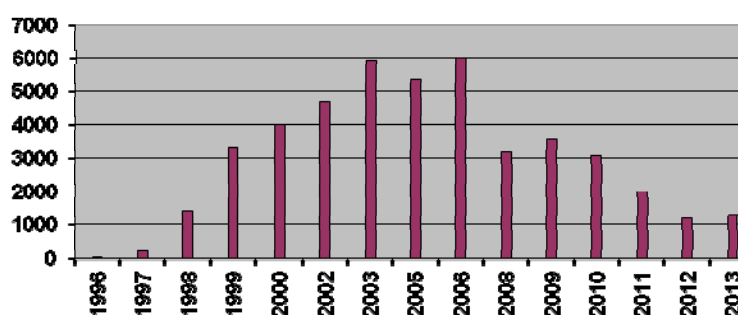


Figure 1. Number of dwellings for rent built by Public Building Societies in Poland in years 1996-2013. Source: Statistical Yearbooks of the Republic of Poland 1996 -2014, Warsaw, Poland

2. 1. Urban concepts and architectural solutions

Complexes of dwellings for rent built by Municipal Public Building Society in Bialystok are located on peripheral area of agglomeration. In addition Bacieczki I, II, III, IV and V are neighbours, forming the big housing district. According research made on the Faculty of Architecture Bialystok University of Technology concerning conditions of living, it seems that inhabitants do not evaluate the location negatively; in their opinion the connection with the city is good or satisfying. First small estate of 123

¹ Law Act Parliament of Poland „Certain forms of housing construction” established 25.10.1995 (Dz.U.Nr 133, poz.654)

flats for rent was built in years 1997-1998 in district Green Hills (arch. A.Duda). He consists of three buildings forming two courtyards – one of them was designed as playground for children. A small pedestrian street is running across the development, leading to building accesses (Figures 2 and 3) . The architecture is characterized by simple, modest forms, well exhibiting the straight, but interesting concept of urban space. Buildings were designed as four-storey, covered with the flat roof, in the mixed technology (partly traditional and prefabricated). Outside walls were solved as sandwich walls, 106 parking places and 14 garages were also designed near the buildings.



Figure 2. Small social estate on Green Hills – urban plan. (arch. A. Duda)



Figure 3. Small social estate on Green Hills. Pedestrian street and courtyard - view

Housing estate Bacieczki I consists of 10 buildings in the quarter surrounded by streets: H.Kollataja, W.Pileckiego and M.Pietkiewicza in the district of Bacieczki (arch. M.Szymański). Architects designed 477 dwellings - 23 488 m² of usable floor space including area of services of 737 m². The general volume of buildings is a 105 108 m³. 81 single garages were located in basements. An area of the plot is 30 963 m², area of buildings - 8110 m²., hardened area - 12690 m², surfaces of the green- 10 163 m² (30 %), including two children's playgrounds. All buildings are solved as 4 - storey. Along the Kollataja Rd double - levels flats were designed (on last two floors) and some services in the ground floor. Outside walls of buildings were made in the sandwich, traditional technology. Buildings have high roofs, with timber structure, covered with the metal sheets. The whole estate was built in 17 and a half months. The main idea of urban concept is pedestrian street going down throw the middle of whole quarter (Figure 4). Unfortunately architects allowed inhabitants to park cars inside the quarter. The traditional character of architecture is expressing by entrances to buildings, made with bricks (Figure 5).



Figure 4. Estate Bacieczki I – urban plan. (arch. M. Szymański)



Figure 5. Pedestrian street in estate Bacieczki I. On the first plan some services integrated with housing buildings

Urban concept of the estate Bacieczki II creates eight housing buildings located in the next quarter surrounded by street of M.Pietkiewicza and W.Pileckiego (Fig.3). The entrance to the estate is the continuity of the pedestrian path from the former quarter. Architects (arch. J.Naruszewicz, arch. Z.Zabagło) designed here 403 flats, the total usable floor space is 18204.9 m². There are some commercial and service pavilions here which have the total usable area of 740 m², apart from them a few little shops are located in ground floors of housing buildings. The access to services and shops is available from pedestrian path mentioned above. 45 garages were also planned and made. Unlike previous estate here outside walls were made in the triple-layers technology (traditional sandwich wall), and outer layer was constructed with the sand-lime brick and clinker. However architects applied very „heavy”, massive details of balconies and other elements (Figures 6 and 7).

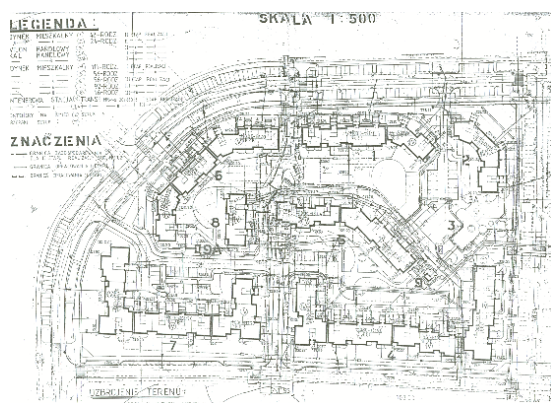


Figure 6. Estate Bacieczki II - urban plan.
(arch. J.Naruszewicz, arch. Z.Zabagło)



Figure 7. Housing buildings in estate Bacieczki II - view

The estate Bacieczki III (4 hectares of site area, 577 flats, usable floor space 25 839 m²) was constructed in years 2003 - 2004 (arch. A.Duda). In the idea of urban concept there is a step forward here comparing to previous solutions. The big quarter of the 4 hectares area was divided into two smaller ones. In these quarters the building development was formed in „U” shape, opening to the east direction (Figure 8).



Figure 8. Estate Bacieczki III - urban plan. (arch. A.Duda)

Additionally in quarters linear buildings were put in east-west direction, creating semi-private urban interiors with pedestrians paths (and also the possibility of technical access - road). High quality construction job, good proportions, fine details, entrances (Figure 9), outside walls finished with

bricks in ground floors, soft path lines, beautiful playground for children and the sport court – these solutions give very good standard, not running away from quality of standards fulfilled by private developers. Also an administrative building with the small kindergarten and 12 commercial spaces (usable floor area - 2556 m²) were located in the estate III. Parking spaces have been provided mainly in the green belt in the west side of the area, where there is the border with the main transit road (Figure 10). Additionally it is possible to park cars in the central strip - street dividing the quarter into two parts. With including 86 garages designers predicted all together 577 parking places what gives the proportion: one parking space suits one flat. For services and shops 52 additional parking places were planned.



Figure 9. Estate Bacieczki III – courtyard and entrances to housing building



Figure 10. Estate Bacieczki III – parking lot (first plan) and kindergarten (second plan)

The estate Bacieczki IV was constructed in years 2006 – 2008 (arch. Z. Zabagło). The total area of estate is 4.5 hectares. 500 flats were designed here what gives 24 313 m² of usable floor space. The rectangular, long site of the location was divided into two smaller parts (Figure 11).

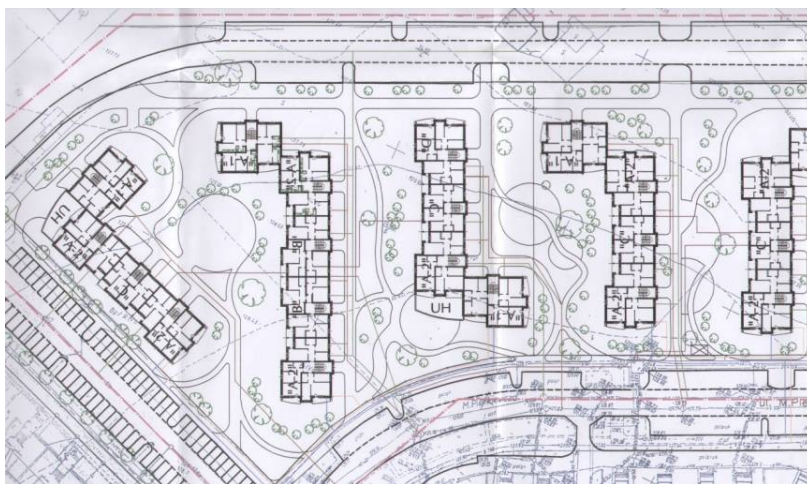


Figure 11. Estate Bacieczki IV – urban plan (north part). Clear idea based on the parallel buildings shaping inner courtyards.

Communication streets were conducted around, adapting to the existing road network. In the estate 49 garages and 6 commercial pavilions were also predicted (Figure 12). In the first urban proposition linear housing buildings were situated parallel to each other what seemed to be monotonously and resembled modernistic estate schema coming from 20th century [5]. Finally designers changed the ideas and urban concept was created by composition „L” shape buildings forming courtyards. These semi-public spaces have good proportions (Figure 13). Buildings contains from repeatable sections or

they were solved as point houses. A good architecture of buildings is an advantage, neomodernistic trend seems to be quite pleasant for an eye, original details of balconies, loggias, entrances, interesting colours suit well to the composition of elevations.



Figure 12. The estate Bacieczki IV – shops integrated with housing building



Figure 13. The estate Bacieczki IV – courtyard view

Urban concept of the Bacieczki V, built in years 2009 – 2010, was based on the principle of creating a few small recreational courtyards in one big quarter (arch. Z.Zabagło). At first the big quarter of the development was divided into two smaller, next designers added additional building between two parts stepped back from the forward building line. In that way two parts have been joined together. We got in the end two additional courtyards plus two main ones (Figures 14 and 15). In the quarter of the area of 1.44 hectares, 212 flats were planned with 9656 m² of usable floor space. Also 37 garages, over 150 ground parking places and 4 services were predicted (services located in ground floor corners of development). The wheeled communication was designed around the rectangular quarter. The estate Bacieczki V is planned as a classical city quarter with development designed strictly along with the each side creating city frontages.

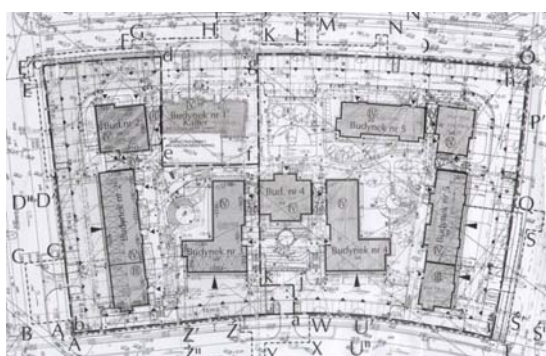


Figure 14. The estate Bacieczki V – urban plan



Figure 15. The estate Bacieczki V – courtyard view

Each of analysed estates is different from architectural point of view, but everyone is well composed urban space. In Bacieczki II it is possible to find features of regional architecture (high mansard roofs, entrances to buildings). In other estates we can see some architectural features of modernism: details and proportions. Urban concepts of estate evolved: from the one with a kind of meander manner, group of buildings with the across pedestrian street, example based on courtyards and finally formed city quarter. All of them are correct from the aspect of creating good city structure – all are quarters with clear planned development [6]. Inside them we got well-formed good semi-public spaces, characterized by good scale and proportions. In Bacieczki I and II wheeled communication was solved in a way allowing the traffic into interiors of quarters what caused some bad conditions of quality of

semi-public spaces (noise, air pollution). In next solutions the road traffic and parking places were designed on the borders of the site, with adequate relation to buildings. Such solution guarantees insulation from the communication noise, it gives feeling of privacy and safety what inhabitants confirm. We can reach semi-public urban interiors going through specially shaped gates, openings between buildings, using pedestrian ways leading under the upper floors hanging over – all these helps to establish clear borders of each estate, help inhabitants to identify their own space and building [7].

2.2. Dwelling standards

In analysed estates buildings solved as sectional are dominating, in Bacieczki IV we can meet also point houses. Buildings were most often designed as four-storey, without lifts, covered with the flat roof, in the mixed up technology (traditional technology with elements of prefabrication). Outside walls were made as two-layered, in one case 3 – layered; sandwich types. Flats have all essential infrastructure installations: waterworks and sewerage, central heating, electrical, telephone, cable television, gas. Floors were made from PCV.

In the estate Bacieczki I and II a few flats located in the ground floor were adapted to needs of persons with disabilities (ramps, lifts), but such facilities were not designed and made in front of each entrance. In estates Bacieczki III, IV and V all located flats in ground floors are available to persons with disabilities (according the Polish building codes). At first, from 1995, flats for rent were being designed based on the following surface standards (e.g. in Bacieczki I,II and III): usable floor area of 1 room apt. : minimum 25 m²; usable floor area of 2 rooms apt. : 32 – 45 m²; usable floor area of 3 rooms apt.: 52 – 64 m².

In 2 rooms flats a bed to sleep was planned in a living room, so it was possible to settle in it from 1 to 3 persons; in 3 rooms flat – from 3 to 5 persons could live. After a few years this situation changed; the government stopped such regulations, now the future tenant – the user (single, couple or family) - decides, what type of the flat for rent he is applying for. The following standards are available: 1room flat – up to 40 m², 2rooms flat – up to 50 m², 3rooms flat – up to 70 m², 4rooms flat – up to 90 m². These values are approaching rates in the commercial housing industry.

At present in estates with dwellings for rent in Bialystok there are a few types of flats, but the majority of such flats are 2rooms apartments - over 60 % (1 bedroom, living room, kitchen and bathroom), with average usable floor space of 50,1 m² each one².

Table 1. The structure of dwellings in Municipal Public Building Society in Bialystok (Poland) in 2003 and 2010.

Category	1 room apt. (living room with bed)	2 rooms apt. (1Br + living room with bed)	3 rooms apt. (2Br + living room with bed)	4 rooms apt. (3Br + living room with bed)
dwellings in 2003	35 %	50,5 %	8,5 %	6 %
dwellings in 2010	19 %	62 %	14 %	5 %

Source: Author's estimation based on reports of MPBS in Bialystok from 2003, 2010.

Green Hills housing estate is smallest from mentioned below. From the whole number of 123 flats located there - as many as 42 of them are small ones (1 room apt.) and only 8 of them have 3 rooms (2 bedrooms and living room).

² Statistical Yearbooks of The Republic of Poland 2010-2014, Warsaw, Poland

Table 2. The structure of dwellings in chosen estates of Municipal Public Building Society from Bialystok, Poland

Category	1 room apt. (living room with bed)	2 rooms apt. (1Br + living room with bed)	3 rooms apt. (2Br + living room with bed)	4 rooms apt. (3Br + living room with bed)
Green Hills estate	34 %	53 %	13 %	0 %
Bacieczki I estate	40,5 %	52 %	6 %	1,5 %
Bacieczki II estate	29 %	61 %	10 %	0 %
Bacieczki III estate	3,6 %	67,8 %	17,6 %	11 %

Source: Author's estimation based on reports of MPBS in Bialystok from 1997 - 2010.

The similar situation is appearing on the estate Bacieczki I – from total number of 479 flats, 194 ones are small (1 room apt.), only 30 flats have 3 rooms (2 bedrooms and living). Here bigger flats started to be constructed - 4 rooms apt., with 3 bedrooms and living (6 dwellings). Proportions of the quantity of flats depending on their size changed on the estate Bacieczki II. Over half of total number of 403 flats have 2 rooms – 1 bedroom and living (247 apt.) there.

According to interest of future tenants a share of 2-rooms and 3-rooms flats is rising. At present the area of flats in estate of Municipal Public Building Society in Bialystok fluctuates from 33.1 m² up to 101.4 m² (Fig.9).

Flats in all analysed estates were being designed as well-distributed, zonal spatial ones. A model of a daily open space has often been applied in dwelling projects carried out last years, with kitchen located in annex lighted indirectly. Some larger flats (2 and 3 – bedrooms) they equipped with wardrobes. In older solutions closed, directly lighted kitchens were designed. Almost all types of flats inhabitants assessed as functional. Inhabitants didn't have a lot of remarks concerning solving the functions of flats, a smaller bathrooms design was suggested in small 1 - room flats (less than 6 m²), and at the same time increasing the living space. In several cases there were some trouble with ventilation of rooms, therefore in flats constructing now, windows are being assembled with special air ventilators .We must notice, that in every country belongs to European Union social dwelling is defined in a different way. It is a condition of possibility to get governmental financial support. Poland only after the accession to the EU established its own definition - in 2007 [2]. Such flats have been rated lower tax for many years.

2.3. Housing environment

In all housing estates with social dwellings for rent in Bialystok they managed to get good quality of the housing environment – inhabitants confirm that harmony. Fine materials and construction works complement the whole project. Modern playgrounds and sport courts were carried out . Certain remarks of inhabitants concern the Bacieczki I estate, where some playground arrangement and toys were made from metal elements (they aren't adapted to small children); there are too many surfaces of details finished with hard concrete elements – a possibility of injury in case of falling for the child is increasing. In all examples parking spaces had been designed, at present in proportion one parking space for one flat – because it turned out that in already exploited estates the number of parking places is not enough.

A lot of trees and other new plants started to grow on areas of mentioned case studies, but the greenery has not managed to grow yet, therefore inhabitants asked, that a park would be useful in the close neighbourhood. Administrations of the Society managed to fulfill these suggestions. In years 2008 -

2009 it was established a recreational park in the insulating belt of the main road, equipped among others with some arrangements for children and young people (Figures 16 and 17). They also made small gated area for dogs owners. A park has the area 1.88 hectares (arch. Z.Zabaglo) and it became fine example of public space integrated with housing district [8]. In estates belonging to Municipal Public Building Society there are too short bicycle lanes. Except for the segregation of garbage solutions environment-friendly, e.g. using the unconventional sources of energy weren't implemented.



Figure 16. Skate park located in the green recreational zone (small park)



Figure 17. Basketball court and football pitch in the park – view

Respondents sometimes emphasized the appearing monotony of the building development, because of applying only 4- story buildings - repeated several times in the Bacieczki I and II. Buildings do not differ of each other so much (only a colour of balconies, balustrades, brick colour), even entries to staircases are the same. The situation has been improved and became more comfortable in estates built later, there are two types of buildings in the estate, but buildings were situated too close to each other. There are service-commercial spaces in all estates. On Green Hills the number of them is 3 (3 and basement used as a studio). In Bacieczki I and II – we can find there 31 commercial spaces, including the administration office of Municipal Public Building Society and two rooms which were rent for student sports club free of charge who are constructing the fitness room and the recreational day room for young people. Apart from little shops there are also post office, bank, dentist's surgeries, clinic of family doctors, private nursery school in these estates. Not so far away the secondary school was built, a primary school is located in an old part of the housing estate, a little bit moved away from Municipal Public Building Society (a few hundred meters in a straight line).

3. Results and discussions

The estates of affordable dwellings for rent carried out in Bialystok in years 1996 – 2012 are good, valuable solutions of that type of social housing. Every next quarter which was built carried higher architectural and urban standards. Particularly Bacieczki I-V estates are interesting examples, located next to each other, they form large housing complex (2169 flats). Although mentioned estates were not designed as the whole one area from the beginning, according to one master plan – they create district of good neighbourhoods (with right spatial and functional relations). In the future Municipal Public Building Society plans to realize one more housing quarter – Bacieczki VI, with 312 flats. The architectural project has been already made and the list of 1500 families waiting for such flats in the city town hall is a guarantee of success of this investment.

The urban scheme concepts of analysed estates changed from a quarter with pedestrian way and parking places inside , throw the "U" and "L" shaped layouts to the concept of "quarters in the quarter". The level of architecture was growing in each next presented estates. The architecture is characterised by good materials, well designed details, good scale of buildings, composed mainly with repeated modules. Almost all flats located in ground floors are available for disabled inhabitants. As positive features we can count location of parking places, providing some basic services, shops, kindergarten and school (the last one was planned in master plan and realized not by the Society but

by the city). Also we must emphasize good proportions of courtyards and well equipped places for children. During research inhabitants responded that they like living in such housing environment and accept its standards. Despite of neoliberal tendencies in private commercial housing in Poland (investors often build apartments without any social infrastructure !) – affordable housing Bacieczki district in Bialystok is positive example of social housing for rent with some aspects of sustainable development (spatial, economical, social).

4. Conclusions

Main conclusions from the research are: affordable social housing for rent constructed in Bialystok create the **city of good neighbourhoods with clearly urban quarters** realize **proper standard of housing buildings** by using good quality materials and details, achieve very **fine spatial design of semi-public and recreational spaces** (even small park). Of course we can evaluate that standards of usable surface of flats is rather low, we would expect larger flats planned for families with children, providing flats for young people, smaller quarters with more individual architectural character and identification. The question arises, if affordable housing should give new spatial and architectural standards or should provide housing on good or high level? It seems that what we really need more is seeking forms suitable for peripheral locations and apply environment-friendly solutions (technical and structural-material), allowing more economical exploitation of buildings. It is a pity, but the programme of such type of housing in Poland was finished and closed. The government plans to develop a new one called Family +, based on the different economic rules. In spite of it, this Polish model of affordable housing for rent is worth promoting in other developing countries with huge housing needs.

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