

SHORT TERM SCIENTIFIC MISSION (STSM) SCIENTIFIC REPORT

Action number: **CA 18137**

STSM title: **The contemporary interventions of the middle-class mass housing and their integration into the architectural aspect of the city.**

STSM start and end date: **15/02/2020 to 07/03/2020**

Grantee name: **Olga Harea**

PURPOSE OF THE STSM:

The mass housing estates built during the post-World War II decades are the most dominant, structural components of many post-socialist cities of Europe. The architectural image of Chisinau, capital of the Republic of Moldova is badly damaged today because of the deplorable conditions of residential buildings built during the socialist time. Widespread unauthorized individual interventions, disorganized renovation, led to an architectural chaos and an “urban pollution”.

As well as Chisinau, Budapest is a post-socialist city with different housing estate generations built of different types such as brick (1950s), block (1960s) and panel technology (1970-80s), but there exists an advanced experience in their rehabilitation and urban regeneration.

The proposed project is within the subjects and goals of the COST Action CA 18137 and was focused on the rules and regulations (policies) of contemporary interventions of the MCMH in Budapest. One of the most important and visible impact of the renovated residential buildings is the exterior design and their laconic adaptability in the existing urban landscape. The main goal of the proposed project was the investigation of existing rules/policies related to the renovation of the prefabricated housing estates and how these policies/guidelines were applied. Another objective was to offer a summary of “best practices” (solutions, methods) which result in the harmonious co-existence.

DESCRIPTION OF WORK CARRIED OUT DURING THE STSMS

The work carried out during STSM strongly followed the plan described in the project proposal:

- 1. The existing policies with regard to mass housing estates in Hungary, with special attention to Budapest city were analysed;**
- 2. The specific policies/programmes that support the renovation of the panel buildings and the ways/strategies of funding were analysed. It was collected and analysed the existing materials relevant to the housing estates that were subjected to the renewable process;**

The literature partly was provided by Dr. Tamás Egedy and Dr. Balázs Szabó, and some writing sources were found in the library of the host institute, Hungarian Academy of Sciences, Research Centre for Astronomy and Earth Sciences, H-1112 Budapest, Budaörsi út 45.

- 3. The case studies were selected and mapped;**

The selection of cases was discussed with Dr. Tamás Egedy, therefore were selected two mass housing estates.

- 4. It was done the assessment of the case studies: their location, the exterior appearance before and after renovation, and their integration into the surrounding context;**

The assessment was performed based on the existing literature and collected data on-site, mainly the physical imprints of the interventions in the form of photo documenting.

- 5. Presentation of research results, meetings with local professionals and academics;**

Presentation of some preliminary results was done on 6 March 2020, in the institute's provided office.

Between listeners were present Dr. Tamás Egedy (senior research fellow), Dr. Patrik Tátrai (senior research fellow), Dr. Balázs Szabó (research fellow), Zoltán Bertus (young researcher) and Fanni Koczó (cartographer).

DESCRIPTION OF THE MAIN RESULTS OBTAINED

Housing policy utilizing prefabricated technology in Hungary

In Hungary, the proportion of “panel” dwellings in the national housing stock is 20%, but in Budapest, this ratio is higher. Approximately one-third of the population lives in large prefabricated housing estates. The mass housing policy utilizing prefabricated technology in Hungary was initiated with the help of the first 15-year housing policy 1961-75 (the target was to build 1 million dwellings in Hungary out of which 250,000 in Budapest) and the second 5-year-plan development project 1961-65. In the mid-1960 and the beginning of 1970, the first housing factories were established which promoted the spread of the panel-house technology. These factories restricted their production only to some types of housing which were prescribed by the state as obligatory. The application of norms in planning also came into practice. The prefabricated housing estate became a homogeneous product - point and line houses with large amounts of green space dominating their layout - without attention to country, city or neighbourhood characteristics. The prestige of these housing estates was considerably higher than the existing housing stock, thus, they became very much favoured by young middle-class families. During the preparation period of the second 15-year housing policy 1976-90 (the target was to build 1.2 million dwellings until 1990), new professional initiatives appeared. The first real discussion about panel aesthetics, occurred in 1975 when the façades of the building and their position in the landscape came into focus. Thus 1976, a new catalogue for panel buildings appeared with some small opportunities for innovation: corner sections to allow more complex urban compositions, as well as apartments for different households, to accommodate multi-generational families, large families or single people. Technology followed new demands, only slowly. During the Hungarian panel period 1965-90, in Budapest were constructed 26 mass housing units, which present a viable solution to the housing problem of a wide stratum from the lower middle class to the middle class.

After the change of the political and economic regime, the position of the large prefabricated housing estate changed. The most important factor affecting this change was privatisation (the national housing stock, including the panels, was privatized - 95% became private after 1990; open spaces -100% remained public). The owners were responsible for building maintenance, potential development of common spaces, technical installation, the façade, the roof, etc. - they bought not only their flats but also all the problem inherent in ageing panel buildings. Ageing is also an important factor in terms of residents. The young generation of the 60s, 70s and 80s, who received their first panel flat to raise two children and live as a typical communist middle-class family using the facilities provided by the state, are now middle-aged and elderly. The transformation of real estate ownership had led to significant problems. The most acute problem was the increasing costs of heating these blocks of flats - the units are heated by district heating which is one of the costliest in Hungary. In some instances, the inhabitants were simply not able to pay for the maintenance of their own apartments; could not cover the costs of maintaining the communal areas of their living environment. For this reason, the conditions of housing in most of the estates had deteriorated in Budapest.

Government programs supporting the renovation of panel buildings

According to Kovács *et al.*, (2018), the housing estates do not appear as independent administrative or planning units, there are no targeted policies for housing estates per se either on the national or local level. However, the future of housing estates was and is permanently on the agenda in public debates. As a consequence, the first-ever renewal programme for buildings constructed with industrialised technology was regulated by the government decree of 105/1996. Its purpose was to support the building renovations that would result in saving energy. The programme was made possible by a loan from the German state with further interest rate subsidies from the Hungarian government. The programme - 1997-2001 "**German Loan**" - gave subsidies for applying insulation – on the facades, the windows and the attic. Due to strict conditions only about one-third of the budget was drawn. Also in 1997 the "**Energy Saving Loan Program**" was launched and continued in 1998. These early regeneration programmes paved the way for a large-scale, nationwide intervention called "**Panel Programme**," launched in 2001. The programme's target is the improvement of energy efficiency in pre-fabricated buildings. It is the most prominent and largest state-financed residential rehabilitation programme in Hungary, with substantial EU funding (Panel I: 2001–2008; Panel II: 2009–2013; Panel III: 2014–2020). In 2017, the development of large prefabricated housing estates once again rose high on the agenda of national politics in Hungary. In 2017, the government began to elaborate a new 20- to 25-year panel regeneration strategy aimed at improving the quality of life of people living in panel housing estates by improving the residential environment.

Approximately 25% of the panel housing stock has been renovated, but due to privatization and the public

procurement method, the change is not on the neighbourhood but on the building level. A building could, as a condominium, participate in this programme (co-financed by the State, the local governments and the owners, each of them sharing one-third of the costs) to add colourful insulation to the exteriors and sometimes to change windows, mechanical and electrical installations. Hence, the number of renovated buildings within an estate reflects the social and economic situation of the neighbourhood.

Case Studies

Újpalota Housing Estate, realised between 1970 and 1975 with 15,049 dwelling units for more than 60,000 inhabitants, is one of the biggest of the 26 huge neighbourhoods that were constructed during the panel period between 1965 and 1990 in the city of Budapest. This neighbourhood with private housing, public buildings and public open spaces, is located on the northeast outskirts of the city, on 136 ha land (district 15). The architecture of the estate is characterised by four residential building types: 11-storey homogeneous "ribbon" buildings, 13-storey residential towers and small four-storey blocks located at the edges of the estate. The political context of this estate appears special because the mayor of the district, between 2010 and 2014, was an architect, and the only architect who has been a member of the Hungarian parliament since 2006. Consequently, the renewal process of Újpalota Housing Estate is a complex process, the building renovations financed by the national panel programme, municipal interventions and also an EU social regeneration project (2010-2015, focusing on renewal of public facilities and open spaces). Approximately one-fourth of the panel housing stock has been renovated, five community gardens realised, playgrounds and open space sport facilities transformed, a part of the open space system and the Main Square were renewed, and the three centrally located public buildings, the health centre, "Spiral" commercial centre and the market were absolutely reorganised and reconstructed.

Havanna Housing Estate, realised in two phases between 1977-1985 and 1987 -1988 with 6230 dwelling units for almost 20,000-22,000 inhabitants, is one of the most stigmatized estates in Budapest. The neighbourhood is located in the south-eastern part of the city, on 60 ha land (District 18). It was built on the site of a previously demolished "State estate" that had been populated by very low-status residents. The fact that parts of the Havanna's population were the former residents of the "State estate" contributed to its bad reputation. The social composition of the population changed considerably after the privatization (the purchase of flats was possible for a fraction of their market price), the lower-income households sold their units and move on. The architecture of the estate is characterised by parallel, 10-11 storey high slabs, forming almost unbroken long rows. The rows of parks with playgrounds and the main walking road with the service buildings (social, educational and commercial services) complement the symmetric layout of the estate. After several attempts, at the turn of the millennium, the housing estates applied for various social and building rehabilitation grants, which enabled vital renovations on the estate. For instance, EU integrated social urban rehabilitation program (2009-2012) focused on the technical renovation of some residential and the renewal of some parts of open spaces (main axis, sport and parking facilities, playgrounds), new private commerce building, social program for elderly, family care, etc. It was also implemented a CCTV system which reduced significantly the crime in public areas. Currently, the estates have some of the best-built environment units. As in the case of Újpalota Housing Estate, the renewal process of Havanna Housing Estate is a complex process, this could be explained also with the fact that the deputy mayor of the district lives in Havanna, and is the representative of the estate.

In both cases, the intervention regarding renovation activities of the buildings is limited largely to the insulation of the roofs and facades, replacement of the windows and entrance doors (not everywhere), and colouring. The interventions such as changing the existing architectural character of the buildings (except the colours) does not prevail. Even the enclosed balconies with different structures, materials, colours, which can be seen in several buildings, have been left as they are. Special rules and regulations regarding the renovation could not be found. According to Benkő *et. al* (2018), the renovation is a mechanical process, and only some municipalities make the neighbourhoods colouration into a professional design matter or ask residents to play their part in choosing the final design version of the painting on the exterior insulation to replace the former grey-concrete façade. Otherwise, the style varies from building to building, builder to builder and in general, renovations are realised without real participatory process.

In both housing estates, the buildings' colours have a different, dynamic and warm palette. They have pigmented coating with a combination of the different hues of ochre, brown, yellow, grey, green, beige and purple. The used warm pallet of the buildings lends the estates a pleasant and unified appearance. Even more, such colour schemes are common in many housing estates in the city, thus these buildings complement the townscape character.

FUTURE COLLABORATIONS (if applicable)

In collaboration with Hungarian colleagues, the collected and analysed materials will be systematised and presented in one article, which will be submitted to the journal Hungarian Geographical Bulletin (Q2).