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06376



Distribution  
LIMITED

ID/NO.196/8  
10 April 1975

ORIGINAL: ENGLISH

United Nations Industrial Development Organization

Ad-Hoc Expert Group Meeting  
on Industrial Construction  
in Developing Countries

Vienna, Austria, 20-26 November 1974

THE FLAT - PROBLEM NO. 1 OF THE MODERN

ARCHITECTURE

(Modern Solutions in some Countries of the World) ✓

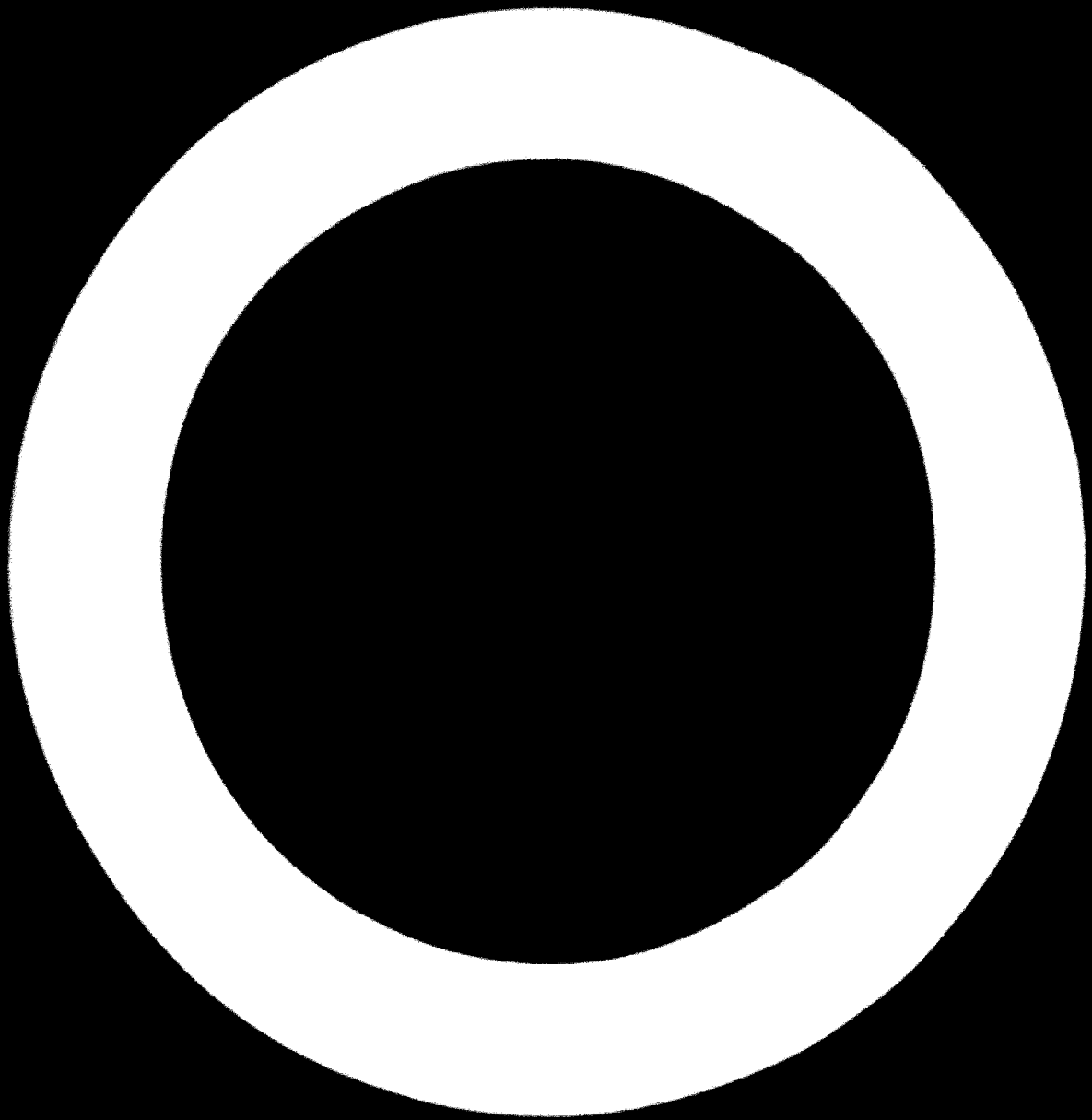
by

Henryk Rucko\*

\* Ing. Architect, Katowice, Poland

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THE FLAT - PROBLEME NO. 1 OF THE MODERN ARCHITECTURE  
(Modern Solutions in some Countries of the World)

I. INTRODUCTION

1. The flat - an essential factor in the economic and social development

The symposium on the subject of modern constructional systems and technologies for construction of industrial enterprises - organised by UNIDO - aims at having a contribution to the improvement of knowledge in this respect as well as at providing conditions for a specification of opinions and proposals. This is a problem of particular importance for the developing countries. A problem of importance everywhere where the process of industrialisation should take a particularly rapid course because it is on the degree of industrial development that the progresses in the development of country's socio-economic life, taken as a whole, depend.

At present we are better prepared to undertake the work connected with programme and plan for a given country's development than it was the case as concerns the countries which were the first to survive the period of a turbulent and spontaneous industrialisation.

Undertaking an organised action properly programmed and planned we hope to be able to avoid the effects which - as occurred decades ago - have survived in the industrialized countries being a nuisance for their respective societies, the ruling organs being often helpless in this respect.

The phenomena at stake are here as follows:

- degradation of natural environment and spatial chaos;
- pauperization and moral degradation of the society because of improper housing conditions (misery - and crime sections of town);
- the unilateral development as concerns technical civilization, accompanied by a growing cultural backwardness.

Such negative phenomena have resulted from an unilateral development of industrial production without taking into consideration man's needs and requirements. In order that the assistance for developing countries be fully useful it is indispensable to observe the complex approach to the development problem.

It is a proper opinion calling for approbation that the discussion on the subject of the development of constructional technologies for the realization of industrial enterprises should be enriched with subjects connected with housing. This will create the basis for conceiving the problems of socio-economic development taken as a whole.

## 2. The flat - an essential man's need

From among the basic man's needs that of a flat, i.e. a determined permanent shelter often appears as strongly as the need of food.

The requirements as concerns both programming and equipment of flat vary depending on natural conditions that result from the geographical situation, climate, physiography, flora and fauna, subjective factors, civilization level, man's cultural level and likings, neighbourly relations both more and less direct, and the like.

In any case, however, the idea of the flat is connected with the feeling that it is the "unique and territorial" place in the world, which is the most precious one.

The general requirements that the flat should satisfy are as follows:

- physical protection against climate, hostile action of both men and animals;
- moral protection against any penetration or interference from the outside into either family or individual life.

In other words, the flat should give to man the feeling of security, stability and intimacy.



Studies over the development of material culture, as well as over human civilizations, confirm the rightfulness of these statements invariably and independently of geographical zone, nation's character or tribe. The preserved architectonic monuments and excavations are the best evidence in this respect.

3. Housing estates as a social form of settlement

The social-economic development as well as the development of civilization bring unavoidable changes in all the fields of man's life. They bring both qualitative and quantitative changes. The slowly going transformations within primary communities or socio-economic changes overlapping through centuries within the European peoples have enabled the evolution in the changes of old forms into those meeting the requirements of a given period. Rapid industrialization, changes in the field of production have provoked social change creating the completely new form in the organization of work and life. In addition, they have provoked deep changes concerning the forms given to both the flat and human settlement.

Since oldest times, the moment that man started to lead a settled gregarious life, the problem of flat has appeared against the background of the problem of abode. It happened often that the better organized societies or under the circumstances required for instance in order to be protected against the enemy, the protection was organized within the framework of an abode and not within that of a separate house-flat. The settlements on piles, on artificial islands, the medieval fortified towns, and the like.

The abodes from the period of rapid industrialization are characterized with the stamp of a rough and tumble action, often unorganized and most often spontaneous. Various forms of organization or an individual action of non-organized people, aiming only at giving a temporary shelter, without taking into consideration the accompanying effect led to formation of slums.

The degraded natural environment, over-density of population, lack of sanitary equipment are the effects endangering people's health in such abodes. Moral deprivation of inhabitants was a parallel effect

of the deformation of shade. Such sections of town were given the name of sections of misery and crime.

#### 1. Housing problems in the UNO work programmes

The unequal socio-economic development of the countries of the world as well as big disproportions in the organization and standard of living in the developed and developing countries result in the necessity of solving similar problems by different ways and means.

The world population constantly growing in a rapid pace creates the situation in which the problem of flat and that of human abode requires an energetic action. This action must be properly conceived and planned as the requirements are now of unprecedented scope. The Organization of United Nations is devoting much attention, endeavours and efforts these problems.

Within the framework of work of the economic and social council, the Secretary General prepared a report "WORLD HOUSING SURVEY" for the session of the Committee on Housing, Building and Planning, held in Geneva 15-26 October, 1973.

This report informed on the existing state and real needs as concerns housing in the developing countries of Asia, Africa and both north and south Americas. For many years now, the Centre for Housing, Building and Planning, the United Nations Secretariat Agenda is working together with various working groups and experts commissions on the evaluation of housing problems in the world and on the formulation of proposals concerning the methods for solving them. Both programmes and plans for separate countries or regions are being carried out. Specific local conditions, the level of economic development, the technical possibilities and the like are the cause of the individualised character of these proposals. All of them, however, are characterized by a vast, multilateral approach to the subject as well as by a full understanding of the need for complex solutions. Despite the fact that work in this domain is intensive, much is still to be done because of the scope of the problem.

5. The scope of problems presented in the report

This report aims at presenting both the thesis and proposals concerning programming, planning, designing and realization of low cost housing for the countries on the road of development. It goes without saying that because of the volume of this report I am unable to present the multi-variant proposals for particular countries. I can neither go into details. However, I would like that the thesis presented by me and their discussion together with the exemplary method of Alexander Lendzion, demonstrated by us, be a contribution to the proper elucidation of the problem.

II. MAIN TOPIC - THE PLAN, THE METHODS FOR SOLVING THE PROBLEM AND SOCIAL GOALS

1. Programming and planning in general terms

As I have said above, housing is an integral part of country's social-economic development. For this reason its solution should be undertaken in a complex way.

The appropriate determination resulting from the concept of the social-economic development should constitute the starting point for the elaboration of programmes and plans concerning housing.

The point is to determine in a sense the basis for nation's existence: agriculture, raw-materials, industry, others like tourism, education and science.

This is obviously depending on the existing state as well as the political-economic-social conception determined by country's and nation's leadership.

All the premises concerning the social-economic spatial programme should result from the above-mentioned general conception.

2. The programming of housing estates

In its first phase it should embrace the global size, determine the co-dependences between the separate groups of subjects, for instance industry, agriculture, infrastructure both technical and social, housing conceived in a complex way and the like.

The further specification of the programme should create the basis sufficient for planning.

In so far as the task of the programme could be brought down to the determination of the size of needs and their types, the tasks of planning refer, first of all, to the determination of localisation of the dimensions and stake and their proper distribution in time, determination of stages.

In its preliminary phase, the programme should embrace the separate component elements of the acode, settlement complex - town or region, without going into details or defining of programme of buildings or group of buildings.

3. The preparation of constructional plans for housing estates

The plan elaborated on the basis of the outlined programme bounds the required dimensions with the definite plans.

4. Selection of the most proper localisation

It should be ushered by a detailed analysis of all the main factors: health and security conditions, proper and convenient transportation connections, appropriate supply of water, electric energy and the like, proper spatial relation with the working centres, supply centres, health care points and the like, proper valours of natural landscape as well as of that transformed by man, able to satisfy the inborn need of spatial order.

Formulation of detailed programmes for housing estates

In connection with the indications resulting from the localisation, formulation by plan of a detailed programme permits to postulate the means of organising the investments, proper distribution in time, and the principles of both use and management of realised buildings and housing estates.

The programme of a housing estate depends, obviously, on a number of factors both the objective ones which result from our present knowledge of the subject, and the subjective ones concerning the concrete conditions in a given country, the climatic, spatial, economic and technical co-dependences and finally the likings and

aspirations of the total of the population and of its leaders.

The differences between particular geographical regions of the world are big today. Thus, the differences in the programmes of settlement complexes will be great in consequence. However, if we take as the basic guideline, for the formulation of the programme for a settlement complex that the task of both flat and human abode consists not only in assuring the physical shelter to man but, as well, in the fact that a flat, a settlement or a town constitute one of the main tools shaping man, the point is not only to take a maximum advantage of this tool but to generalize its use. It is for this reason that the programme for a settlement complex should comprise:

- the types of flats and types of their development properly selected;
- a social-cultural programme, an entertainment programme and a programme concerning sports and physical-culture equipment suitable for the inhabitants of a given country;
- a programme of health care able to satisfy the needs that result from the specific character of locality;
- an appropriate programme as concerns both trade and handicraft equipment and buildings, and the like;
- a proper programme of technical installations for protection of the colours of natural environment and rehabilitating installations as well as for the protection of transformed environment.

Stress should be put, in this respect, upon the fact that implementation of such a programme is of special importance for the less-developed societies, where there is a greater need of exerting an educational influence which, on the other hand, gives there better results.

6. Organization and investments in a housing estate

In the case of a settlement complex the organization of investments well conceived and formulated in the plan is of importance for the preparatory form the process of realization and taking over for use a settlement complex as well as for the shaping of costs and, finally, for the effects of use.

In other words, the final effect which is the complex social effect, depends on proper organization of investments, proper course of particular works which occur successively, on the appropriate distribution in time of working and taking over of the building by the user.

Thus, a proper organization of investments consists in:

- assuring the financial means for realization of a fully designed and planned programme;
- assuring the proper both technical and production means for realization of undertaking;
- a distribution in time of particular stages of the project, assuring the handing over to the users, the fragments completely finished and with a full programme of equipment. Moreover, the proper succession of particular stages. The point is to finish completely the particular planned fragments, avoiding by this need of coming back to the building site. Any such coming back usually results in a devastation of parts already realized making more difficult the life of the users;
- the above depicted realization of the given programme will permit it to leave and preserve the proper territorial reserves in the technical infrastructure and in the development of natural environment having in mind the eventual development of needs in the future.

#### Organization of working

The technology of the building process and its efficiency have their proper conditions. On the basis of a feed back they condition the either stimulating or hampering factors which make the course of the realization of venture a more difficult one.

Particular statements should not be generalised. In this field a particularly important role is played by local factors. The climatic conditions, country's economic development, the intellectual level of the population, both the materials and local products being at disposal can exert a considerable influence upon the decision making.

However, it should be stated, despite the above mentioned reservations, that certain general thesis may and should be formulated as concerns the organization of working, the requirements put before the educators and the requirements concerning the building under the process of realization.

For this reason it should be strongly stressed, that a proper specialized executing organization should be set up in order that housing problems find a solution in social scale, i.e. not in the scale of separate, exclusive houses but within the framework of housing estates, settlements and towns, and the more, as concerns the whole of the country. This organization should base itself on a good orientation as concerns the tasks - their specific technical character and scope, also, i.e. as concerns the indispensable technical and financial means and also the personnel its professional skill.

In determining the tasks for building working, it should be borne in mind that constructions of the mass-scale housing should be characterized by:

- the appropriate durability as well as easiness of use and conservation;
- proper sanitary-hygienic and health conditions;
- the possibilities of application of simple and easy technologies enabling a short-term realization, the so called industrialised technologies;
- relatively moderate costs;
- proper composition into the given landscape, i.e. aesthetical values.

In order that the above-mentioned requirements be met the following measures are indispensable:

- realization of only good projects, prepared especially for the given conditions and elaborated on the basis of a sufficient knowledge of the subject;
- application in realization of only good materials having the properties determined by the requirements of the project as well as the exclusive use of good equipment and installations;
- handling the working over only to well trained and prepared experts. I have in mind in this respect not only the management and survey but craftsmen and workers as well.
- The experience in this domain gained in many countries with different development level confirm this thesis. Proper preparations should be made before the implementation of tasks is undertaken. The appropriate training of personnel is the most important factor within this scope;
- equipping the executing organisations with proper implements, tools and facilities. It is not only the point to replace human work by machines. In the countries on the road of

development there exists the usual surplus of manpower. The proper equipping in implements and facilities aims at speeding up the pace of realization many times, with a preservation, however, of the standards and parameters required for technical reasons.

### Organization of utilization of a housing estate

The quantitative development of societies and both moral and technical - the latter one conceived as an increase in needs as well as ageing of technical solutions - utilization of the produced resources results in a situation in which the housing demand and its satisfaction bears the character of a continuous not of a single process. Because of it, besides the mere process of production, the process of utilization and of the proper maintenance of both produced and owned resources is of equal importance. The following problems should be both noticed and properly solved in the process of utilization:

- the organization the concept of which should be taken into consideration as early as in the phase of programming and project making.
- the problem of the organization of utilization bears more over the features of a factor stimulating social life as well as problems and co-activities of the inhabitants of a given settlement unit. Observations and experience of many countries denote a considerable importance of this problem consisting in the proper organization of social life within a settlement unit in order to properly maintained the produced housing substances;
- the technique of conservation and repairs, which mainly depend on technical solutions in the projects, the decisions concerning the methods and principles of conservation being of equal importance. By way of example, the principle of the centralized disposition within this scope or the one divided into independent sections. For instance the adoption of principle of periodical overhauls within the framework of technical control or later repairs in the case of a breakdown and the like;
- financial basis. Many various solutions can take place in this respect beginning with the centralized funds created by payments of the flat rents properly calculated up to the principle of single pays for concrete services - such as survey and control of installations or repairs in the case of a breakdown. The selection of the proper principle should obviously be adapted to the local possibilities, needs or likings as well as to the organizational conception adopted in a given case. The decision in this respect should be undertaken in advance in a proper time.



The above-analysed elements do not exhaust this subject of such importance. The subject is particularly vast and its social importance is great. For the developing countries, for the societies less advanced in their respective development because of historical conditions, a well-planned modern housing may and should become a factor that accelerates their development. This goes both to country's social-economic development and to its inhabitants' both intellectual and civilization development.

#### 7. Designing of a housing estate

General decisions as well as general provisions undertaken during the phase of programming and planning should be the basis for designing of concrete housing estates and of separate buildings. The task of designing is to have such an orientation in the subject and undertaking of such detailed decisions which can become the final working basis.

#### 8. Detailed Programme

The programmes refer to a housing estate, taken as a whole, to particular buildings and installations. In the countries with social, economic and spatial planning highly developed there exist the elaborations which serve as a proper information, being in some countries even an obligatory state act concerning the determinations of a detailed programme for complexes or separate buildings. Everywhere where there is a lack of such elaborations the situation is obviously much more difficult and the probability of committing an error much greater. There are however the possibilities of taking an advantage of simplified methods which approximatively, can be of help in such situations. Undertaking an effort aiming at serving assistance to developing countries as concerns solving of housing problem one should, in any case, start from the proper understanding of needs, conditions and to prepare the conception of procedure, taken as a whole against this background. Such a conception should conceive the problems of the programmes for housing estates as a whole, as well as for separate buildings - dwelling houses, schools, out-patient clinics, trade, cultural and sports centres as priority ones.

The flat programme should, first of all and obviously, depend on the size of family for which it is designed, in any country or geographical region. It is obvious that local conditions and in particular traditions, aspirations and social need of the population usually determine in a more detailed univocal way the conspicuous elements of the programme.

The simplified statement can be assumed that, for any type of culture and human needs the flat should comprise three types of accommodations for individual utility bearing a more or less intimate character (bedrooms and eventually working lodgings) and finally, the technical service part (kitchens, bathrooms, toilets, stores); it goes without saying that various modifications can appear in this respect both as concerns the enrichment of the programme or its simplification, the general sense being, however, unchanged.

In the wish of the proper fulfilment of the task, the optimal programme of the flat should be determined and its separate elements as well as their size should take into consideration the using unit, i.e. the number of persons, the family or the individual. Then, the proposals should finally take a concrete shape, depending on the possibilities and means really at the disposal as well as on tradition.

Much has been done in the world in this field, in order to meet man's housing needs. The elaborations by scientists, social workers and experts as well as those prepared by institutions and various organizations, especially during the last fifty years and more particularly after World War II, in the last 25 year period represent a rich, multi-sided and valuable material. Of social importance as concerns the routine of programming and housing designing were and still are the two Charts - the Athenian Chart and the Chart of Cologne, both formulated by architects, by CIAI. They constitute the elaborations in which the ideas concerning housing programming and designing have been specified. The principles for the elaboration and designing of a housing estate or separate buildings or flats have been also specified in them. These elaborations have become not only a valuable record of studies and conclusions but they, moreover have played and still play an important role as an obligation

taken by architects to devote a special care to the well-being of man in this field of professional activity.

At present, as concerns the IUA activities (International Union of Architects) work is being continued on improvement of the above mentioned elaborations, particular stress being put upon taking into consideration the specific character of the developing countries. This work is being carried out by the IUA Commission for Housing which has announced that the task will be accomplished and conclusions prepared till the end of 1975.

#### 9. Designing solutions

As it has been said above, the flat a housing estate (abode) and the town are the concept comprising the whole rich complex of problems concerning the life of the individual and of the society. The detailed programmes vary depending on different conditions and situations which differ. The designing solutions both of the complexes taken as a whole as of separate buildings or flats should be adapted to concrete conditions, however, with preservation of the essential rules, which do not change and which are up-to-date generally.

The tasks concerning designing of housing for the mass-scale construction are especially important in view of the fact that every designing decision referring to functional solution, as well as to the solutions concerning materials or aesthetical aspect is to be repeated many a time. Thus there exist the danger of repeating the errors, also many a time. It is for this reason that designing of housing should be given to architects who are suitably prepared and experienced and who, more over, represent a high level of professional morality.

#### 10. Functional solutions

The functional solution of flats and complexes should be based on a proper programme being particularly adapted to the following aspects:

- the differentiated individual needs of particular families;
- the family need changing during the period of utilisation owing to the changes within the family, maturing of children, ageing of the grown-ups and the like;
- local climatic conditions for instance protection against insulation, protection against wind and the like;

protection against radon accidents, for instance, a fire insurance of proper hygienic conditions, sanitary including protection against verms and proper security.

#### 11. Solutions concerning techniques and materials

The technical and material solutions will obviously differ depending on local needs and possibilities. Nevertheless, it is indispensable in any situation to determine the necessary conditions which should be met by the mass-scale organized housing construction. The buildings should meet the following requirements:

- they should be of proper durability;
- they should be easy in utilization and maintenance;
- they should have an appropriate resistance against harmful effects of climatic factors, animal wreckers and unproper utilisation;
- they should meet aesthetical requirements by their appearance.

#### 12. Equipment of housing estates

The equipment of housing estates and buildings in proper appliances and installations aims, first of all, at assuring to everybody the appropriate hygienic sanitary conditions as well as the general security.

It is for this reason that the following aspects should be considered as the basic, indispensable condition:

- supply of both drinking and washing water to every housing estate;
- assuring of a proper system of dirt and waste removal.

More over proper designing solutions should be assured as concerns the problem of heating in special climatic zones.

It is obvious that this refers not only to the separate flats. The problem should find a solution in the scale of the whole housing estate. The point is to find a solution in designing the mere installation of heating appliances but to find a solution as concerns such problems as, for instance transportation and storage of fuel in the case of individual heating installations, then the removal of

slag and cinders, pollution of the air and the like. The problem of lighting calls especially for a thorough study and designing. The point is to assure the artificial lighting in flats, accommodations of common utility in both residential and service buildings as well as outside lighting. This is of great importance because of the security of inhabitants. The proper protection against fire or poisoning as well as personal security should be also assured.

13. Economic problems

We are often faced with a tendency of applying a simplified economic calculation consisting only in an attempt of being oriented in the relation of costs. Such a calculation does not take into consideration the basic factor, that is the evaluation of the social usefulness of the accomplished task. A simplified calculation is applied most often when the fairly great needs are faced with the difficulties of realization because of the limited possibilities. In order to avoid an erroneous orientation resulting from such a simplified economic calculation, the assumption should be made that the basis for economic calculation consists in:

- the minimum standard from the functional-technical material point of view, concerning the mass-scale housing construction.

The methods consisting in diminishing the standard applied in some countries with the aim of improving the economic results are of course erroneous because the economy consist in obtaining maximum of advantages from the definite outlays and not minimum outlays for the price of renunciations.

14. Designing and housing policy

Finding of solution for the housing problem in the social scale is always a very important and difficult undertaking and it must take place in a definite time. The greatest needs in this respect are revealed by the developing countries, i.e. in those faced with many problems requiring a solution in the broadest social scale. For this reason the solution of housing problem must take place according to the manner determined and planned in advance. The problem of the general conception and of its solution has been tackled upon at the beginning

of this report. I would like to draw attention on relations occurring between the principles of designing, i.e. of the detailed designing of flats and housing estates on the one hand and the thesis of the general housing policy on the other.

In the case of great demand and of impossibility of its immediate satisfaction there is the possibility either of:

- creating the substitutes through an uncomplete satisfaction of need;
- a temporary limitation of the degree of satisfying the need.

The first solution leads towards the creation of substandard flats and housing complexes, not fully adapted to the modern customs in this field, for instance construction of flats without taking into consideration family's need of having one family room as well as construction of flats without assuring the hygienic-sanitary factor, and the like.

The second solution permits it to design and to realize flats and complexes meeting modern criteria and it also consists of a conscious purposeful condensation of inhabitants in order to solve contemporarily housing problem of those who are in greatest need. Such solution can be applied only on the assumption that there exists a plan the realization of which will enable it to restore the conditions and principles of utilization according to the principles of both, the programme and design.

The choice of the latter solution involves, however the danger that the sub-standard conditions created to the inhabitants because of an over-concentration in flats may create the definite negative social phenomena. Nevertheless there exists in this respect the hope of a relatively easy improvement of the situation through a deconcentration of inhabitants.

#### 15. Working of a housing estate - methods of organization and technology

Building working of a housing estate just a fairly important factor as concerns the success of the purpose of solving the housing problem. It exerts an influence upon the pace of satisfying the needs, upon their quality as well as upon the economic effects. The

general problems connected with working that have been analyzed above as concerns the study of details are given a confirmation that:

- building activities must be organized properly in connection with the scale of project;
- building activities must be implemented by a proper personnel of various degrees as concerns the professional training;
- building activities must take into consideration the existing local conditions both natural and technical.

#### 16. Preparation and organization of working

Preparation of working as any other organized activity must be preceded by a proper orientation. The general orientation carried out for the phase of general programming, planning and designing should be properly deepened through the indispensable studies and observations as well as according to the need of research and experimental realizations. The eventual retraining of building workers should be also included in the scope of preparatory work. Thus, the organization should be adapted to the size and type of task which must be implemented under the concrete local conditions.

#### 17. Selection of the most proper technology

The good of the proper technology requires particularly thorough deliberations. The generally known statement that technologies based on the industrial production of elements as well as use of machines to assemble them into the ready building give better both qualitative and quantitative results, and more over, or perhaps first of all give the possibility of reducing the employment, is generally speaking true. However, under the concrete conditions a traditional technology may give better results. Besides, the natural conditions such as, for instance, mountain region, transportation difficulties and the like can result in different relation of costs and space facts in other premises as concerns the choice of technology.

18. Selection of type and unification

are the consequences of the mass-scale production. The industrial production of goods manufactured in factories under the form of completely ready products as well as the experience resulting from it have influenced the crystallization of views concerning the industrial building production. In many cases there occurred the phenomenon of the analogies of thinking and deciding pushed too far. I mean here the conception of typical buildings or even of typical complexes of buildings. The difference between the industrial production of such products as, for instance, a radio set and such as elements for building consists, first of all, in the fact that a radio set is completely built and assembled in the factory. It leaves the factory as a product completely ready and good for use. Building elements produced in the factory on a production line leave the factory separately. They are assembled not earlier than at the building site. Almost every building must be modified according to the conditions and needs that result from the conditions of the area. This fact gives, more over, the possibility of modification particular buildings and of advantageous differentiation in the architectonic formation with no influence on the course of production and costs.

19. Constructional technology as a factor of personnel training

The selection of the definite method of housing realization depends on many conditions and it brings many consequences also in the field and scope not resulting directly from housing problems. From among other problems that of the properly trained personnel is of importance. In the case of shortage in this respect the selection of technologies which in a way impose the definite activities and have the ability of imposing the determined qualitative parameters, gives better results also as concerns obtaining of qualifications by the personnel. Alexander Lendzion's technology the example of technology of this type.



20. Constructional working of a housing estate and the housing policy

The presented analysis and points of view as concerns building working result from the observation of research and evaluations undertaken in many countries of the world concerning the attempts of solving the problem. It is often that the attempts are undertaken which apparently create the perspectives of success, however, without bringing in practice any effect or even ending as a complete fiasco. I mean the attempts of using building methods and not modern working organizations which base themselves on the proper strength of the population and on a such assistance, most often, small one, as concerns the finance. The examples of such initiatives have been undertaken both in the developing and developed countries. The unsatisfactory effects resulted from:

- inappropriate utilization of qualification of people building their own flats - for instance, a writer is unskilled in building work and he waste a great amount of energy and time;
- either scrap or old fashioned materials of bad quality, for instance natural clay used for the construction of walls resulted in the out-dated, substandard conditions of housing;
- lack of a proper organization of a good expert executor of the furniture of the area water conduit, sewage pipes, roads and the like has led to the emergence of slums sections, thus to a phenomenon in connection with which actions have been undertaken in order to eliminate it.

It is for this reason that I put a particular stress upon the fact that the problem of the mass-scale housing can be undertaken exclusively when modern knowledge and modern to-date technique are applied. I understand that this is a field of action of particular importance for specialised international organizations set up in the name of human solidarity in order to give assistance to the developing countries being in need of it.

### III. REALIZATION OF HOUSING IN SOME COUNTRIES OF THE WORLD

The housing problems and the growing demand for flats appear as a general world phenomenon. Moreover, we have everywhere to do with the phenomenon of quantitative demand. In so far as the highly developed countries are concerned, this demand reveals qualitative features, namely we observe the demand for flats with a high modern technical standard.

The methods for solving the problem are differentiated and depend on the level of development, wealth and, mainly, on political doctrine on which a given state organization has been based.

As concerns the European countries, in the socialist countries housing problem is included as one of the main elements of the state programme implemented consequently within the framework of both many year and annual plans of social economic development of the country. Special investment, designing and executing organizations are set up being charged with realization of this programme, and concrete realizations are executed according to the complex plans of spatial development. For many years now, the Soviet Union has the leading place in the field of building as concerns the number of flats built annually in terms of 1,000 inhabitants, more than 12. In other socialist countries the realization of flats is differentiated both quantitatively and qualitatively, depending on the needs and possibilities in a given period, being, however, a basic problem in the state plans. As concerns Poland, housing construction is covered by three sectors: the state sector, the co-operatives and the private sector within which one-family houses are built. The state takes care of the whole housing assuring to it a significant technical and financial assistance. In the socialist countries the basic type of flats are those built in multi-flat buildings on the areas intensively built up. The essential housing mass is executed on the basis of industrial technologies based on various systems of type selection and unification. There exist the detailed norms for programming and designing of flats, buildings and housing estates.

As concerns the West European countries, the Federal Republic of Germany, the Scandinavian countries, particularly Sweden, and Great Britain distinguish themselves as concerns housing. In these highly developed

countries the problem of qualitative standard appears beside the quantitative problem, in a general way. The housing resources, often decapitalized and lacking a full standard should either be exchanged or rehabilitated. This is the phenomena which usually appears together with the need of reconstructing the town centres in order of adapting them to the modern requirements, transportation system, ground furniture and the like. The form in which housing investors are organized is differentiated. The financial assistance of municipal authorities appears varying in degree that of state authorities being often. Private enterprises, redeeming the areas and building separate buildings or their complexes in order to sell them later for profit constitute an organizational form often met. Housing construction is often undertaken by big industrial organizations doing it for their employees. The technical solutions applied are characterized by a great variety and a generally high technical level.

As concerns the developing countries, no examples exist, so far, of big complex plans for the solution of housing problem on the social scale the casual attempts of partial solutions not only bring no effects in the broad social term but they can not be recognized as a success. On the basis of a thoroughful and proper evaluation the UNO has elaborated the proposal of assistance for the developing countries through undertaking of research and analyses as well as plan-concerning elaborations carried out by groups of experts within the scope preparatory for both designing and realization decisions as concerns housing. This assistance consists in the choice of subject both in selection and organization of expert groups and in the partial financing of their work. Work carried out for BEITU, HONGKONG, INDIA etc. can be mentioned as concerns these initiatives.

I do not analyse the situation existing in the USA, because the specific character of this country imposes the solutions useful only in its conditions.

#### IV. CONCLUSIONS

The following conclusions emerge against the background of the analysed problems, the analysis carried out and statements:

Finding of solution for housing problem in social scale should be undertaken against the background of the plan for country's social-economic development, taken as a whole.

A good orientation as concerns the needs and the possibilities is indispensable.

On the basis of a full orientation it is indispensable to elaborate the general conception concerning the social-organizational and technical aspects of housing before undertaking of detailed solutions. In order to assure proper realization of the conception formulated in this way, it is indispensable to define the principles of survey and control over it.

In parallel to the studies carried out it is indispensable to make both research and experiences on concrete, experimental realizations.

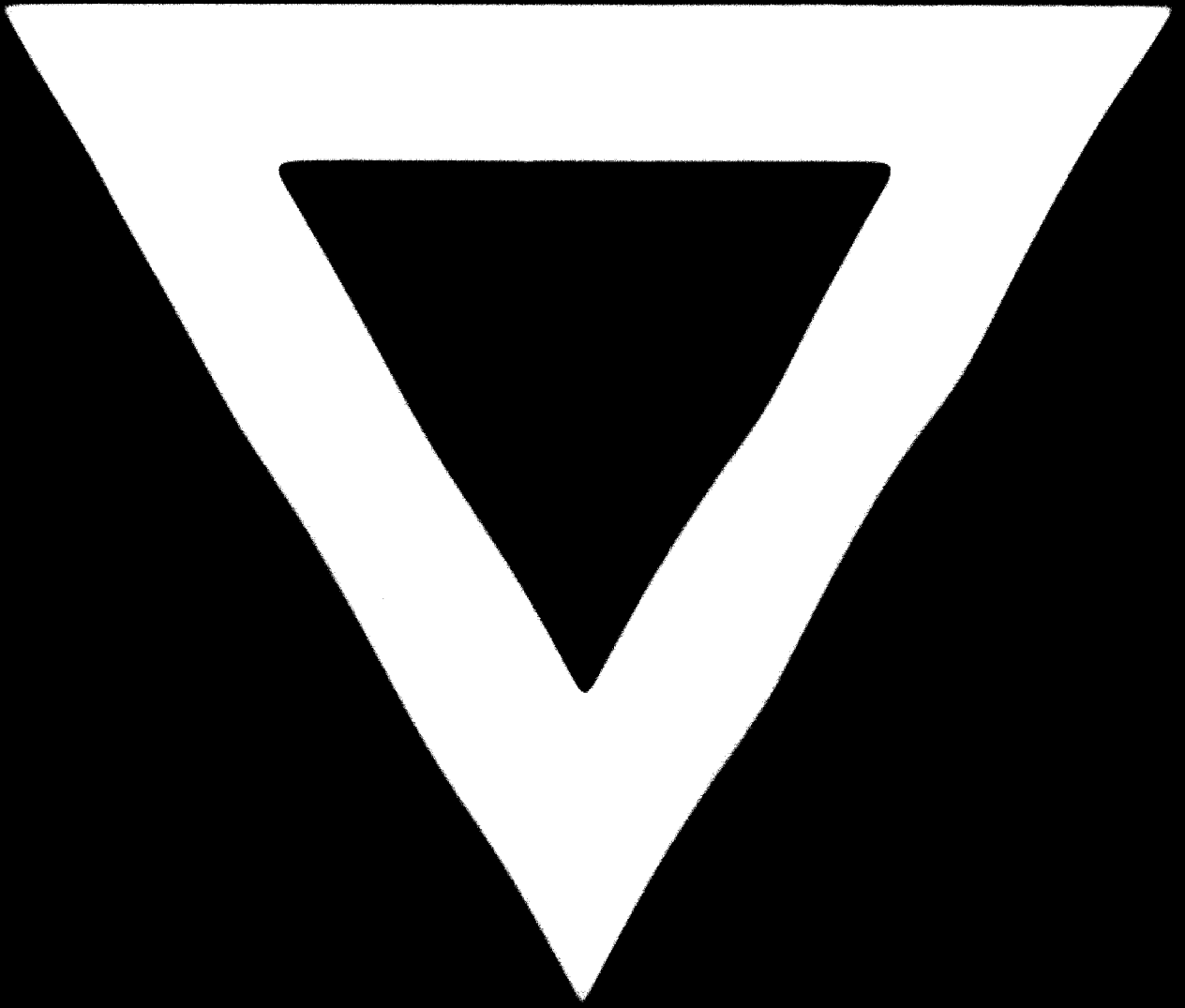
Undertaking of personnel training concerning various jobs (functions) and different fields, at a possibly early phase is an important element of preparing the realization.

It is indispensable to undertake work concerning starting of the production of materials and equipment for building industry.

Need of undertaking legislative work in a due early time is the essential condition acting in view of man's protection as well as that of natural environment against the harmful effects of industrialization and of the development of investments.

It is particularly indispensable to determine the principles for the organization of spatial architectonic authorities and building survey as well as their competences and responsibilities.

It is indispensable to determine the principles for organization of planning, designing and investing.



76.01.15