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MASS HOUSING IN CZECHOSLOVAKIA^{1/}

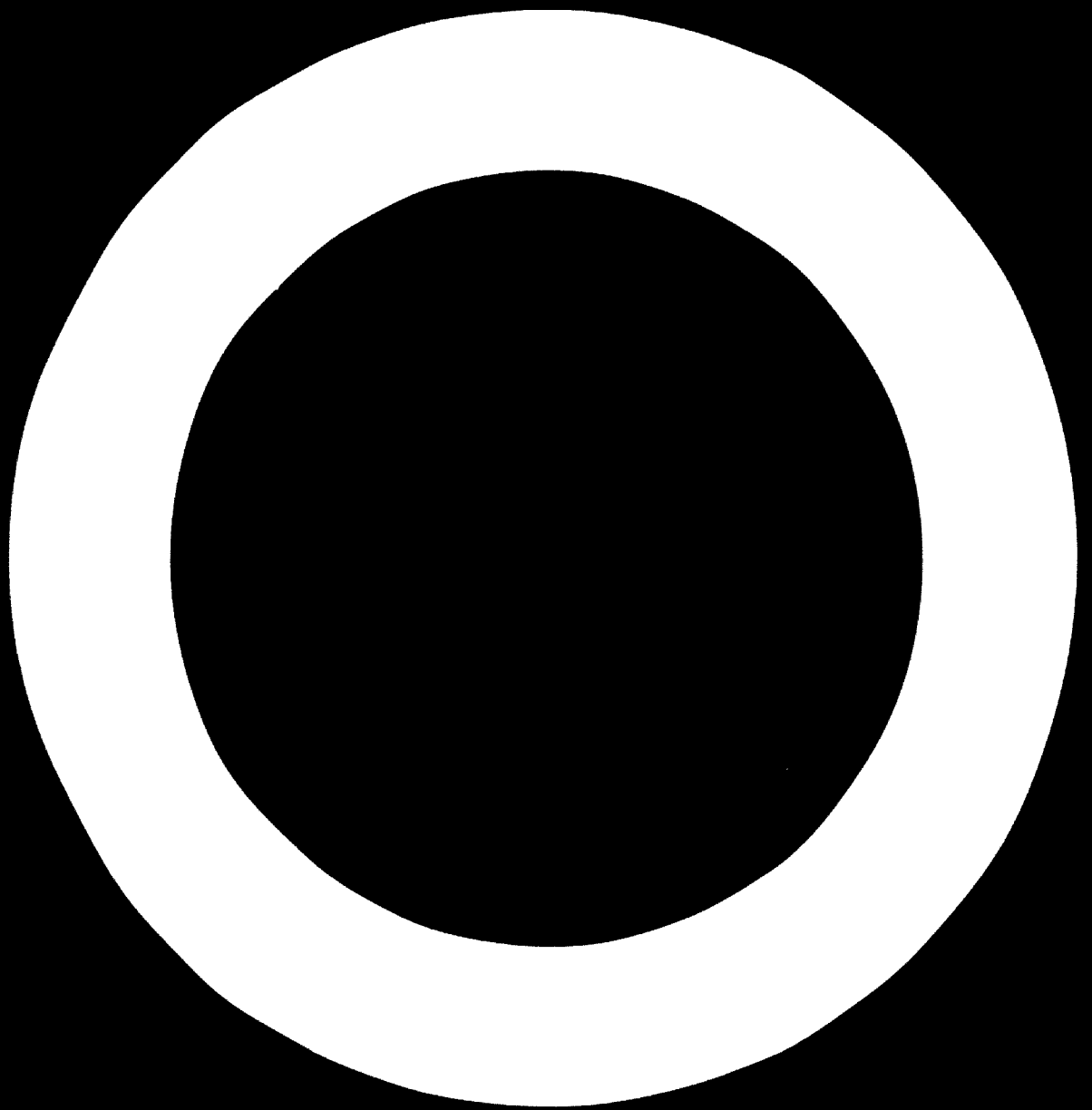
by

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Dwelling as one of basic living necessities of man as family, is passing through certain changes on each development step level of community. These changes depend upon the degree of economic and cultural development, and upon the way of solving the living standard of population. Intensity of solving the dwelling problem by social authorities, by state and by population, depends to great extent upon peace development. Wars and warlike situations between nations, not only are drawing off the human resources and financial means, which could be devoted to housing, but they are the cause of mass destruction of dwelling stock created by previous generations and of new dwellings as well.

Theory and practice of housing policy in USSR, in contradiction to countries with capitalist social formation, does not use terms of housing. In Czechoslovakia, like in other socialist countries, housing problem design is becoming an all-society task. Housing in USSR is one of the basic programmed tasks of collective, economic and social state policy. It is determined and secured by all-people national-economic plan, the basic instrument of economic and social policy of socialist state.

Basic character of socialist housing policy in USSR is to assign dwelling for all inhabitants with the aim, successively with development of economy, to secure a self-contained flat for each family. In such all-society organization, there is not differentiation between luxurious expensive flats and cheap or economic flats with lowest standard of equipment and space. General level of living in USSR is not unbalanced and determined by small average of small number of luxurious and great number of substandard flats. Social design was characteristic for four socialist Czechoslovak republics prior to second world war. Socialist Czechoslovak state housing into being, after 1945, in designing

the level of living and housing is beginning to use the terminology of socially average - standard flat. This standard flat is realized in more size categories, distinguishing by number of living rooms and total flat utility area. Standard of housing has an upward tendency. The space of average flat is raising by increased share of flats with three and more rooms, by improving of disposition and by raising of flat utility area in all categories of sizes. Development of standard housing is purposefully secured by state in the scope of its economic and social policy.

In the scope of all-society development of dwelling for all inhabitants, also social aspects of housing problem are solved. In the scope of social aspects, living problems of young and old generation, problems of families with more children, families with low incomes for one member of household etc. are designed.

Czechoslovak republic was restored after victory of Soviet and allied forces over fascist armies in Europe towards 1945, on the base of victorious national liberating struggle against fascism. It was restored as a state of people's democracy. Logical and objective component of economical and social policy of people's democratic state, immediately after liberation, was also the design of housing problem. Programme of housing was an important part of two-year plan during 1946 - 1948, for restoring and developing the national economy, which was destroyed during the war. Housing took up an important place in first two five-year plans during 1950 - 1950 having developed an extensive industrialization of our country and collectivization of its agriculture.

Basic programme of housing problem design was approved by state organs in 1959. This programme was embodied in third and fourth five-year plan in 1960 - 1970. Consistent realization of quantitative design of housing problem in USSR, expressed by

Principle - the entire housing stock of the family - is secured in the first - second - third - fourth - fifth - sixth - 1971 - 1980.

Extraordinary development of housing construction in Czechoslovak socialist republic in the first ten years of socialist construction during the period of 1949-1955. In these years thirty per cent of the housing stock of the republic, all the housing stock built in the republic during the war time was destroyed. More than 250 000 of new flats were built. It is more than the housing stock built in preceding several years. Until the first war Slovakia was a part of the Austro-Hungarian empire. Between two wars, it became an agrarian, industrially undeveloped appendage of bourgeois Czechoslovak republic.

Dwelling of Slovak population under conditions of socialist formation in planned economy has qualitatively changed. Every second family is living in a new flat built after liberation since 1945. Also flats from pre-war time, prior to 1945 were mostly brought up-to-date. Thanks to rapid dynamics of housing development, section across housing stock on Slovakia is involving all development forms of socialist dwelling.

Rapid dynamics of housing during the last 20 years has expressively changed the appearance of Slovak towns and villages. Modernized housing stock was built up. New town sectors have been constructed in large towns. In towns with population over 100 000 inhabitants, in Bratislava and Kosice, number of people has more than doubled during the period of 20 years. New urban districts in towns of medium and smaller size are characterized by multi-floor construction. Villages have, beside the old, construction of multi-story houses or groups of new modern houses technically well equipped. In selected villages now centres of civic amenities, day care centres, shops, cultural appliances, social and health centres, recreational centres etc. have been established. Rapid backwardness of village dwelling so the called Slovak villages of time prior to thirty

dwelling. In housing stock there are more than 58% of flats being constructed in last thirty years, under conditions of socialist society after 1945. The rest about 41% of flats are coming from period of the first CSR /1918-1945/ and from the period of Austro-Hungarian monarchy /prior 1918/.

Housing stock in towns, originating from time prior 1900 /about 11% today more than 70 years old, is composed partly of more-flats houses and of residential buildings /town villas/, but mainly of ground floor row houses with low standard of space and without complete public utilities. Majority of dwellings, from the time prior to second world war, more than three-quate of them is in villages. Town dwelling houses as well as family houses are masonry ones, made of burnt bricks with basic public utilities. Houses in villages are almost exclusively constructed as family house /one-family houses/, in majority of stone and timber, or of unburned clay, according to local sources of raw materials. Originally they were covered with straw, or with wooden roof cover /shingle, cover boards/. In mountain area, beside these permanent dwellings of that time, certain wide-spread wooden buildings, called mountain farms and chalets, for accommodation of shepherds of sheep and cattles and for accommodation of woodcutters are preserved. Originally, family houses in villages have been composed of one large room, of an entering part with stove fireplace and of a chamber. In the housing stock of today, as far as these houses are still surviving, they were modernized, they are already electrified, heated with constructed furnaces and cookers. Timber houses are continually becoming a greater infrequency. Most beautiful of them are placed into scanzen, as commemoration of popular architecture. As long as they are conveniently situated in the nature, they are successively, after certain modernization, adapted for recreation purposes.

housing stock from the time of bourgeois CSR is 50 - 55 years old. It is determined by expressive social differences in towns, as well as between town and village. These differences are partly, in used materials, but mainly, in the size, disposition and architecture of houses. In the connection with advancing industrialization, burnt brick and roof cover is becoming a predominating material. It is combined with stone used for foundations and ceiling space. Timber is used for construction of ceilings and roof truss. The application of lime with sand as a binding agent, and for internal plaster and external renderings, is also spreading.

Expressive social differences in towns were also seen between garden suburbs for wealthy people and marginal district for collective economic side of workers and town poverty. On periphery of towns and in the villages, especially during economic crisis under first generalization of town poverty, were originalities. Public construction of agricultural workers on countryside, in collective farm buildings close to farm buildings, in the towns, in the poor. At marginal districts - small workers, built in of workers - small farm buildings, in greater parts with timber, with timber ceiling, roof truss, burnt roof cover, timber floor, was predominating. At power plants and in some towns, timber truss in some connection with burnt roof cover, in the villages with timber and burnt roof cover. At various parts and seasonal workers in the towns, the building of unburnt bricks with timber truss and burnt roof cover are still surviving. Buildings belonging to part of bourgeois CSR in the time of bourgeois CSR, which was socialized, after the liberation, especially during the last 15-20 years, went through considerable reconstruction, and went the only element of bourgeois CSR in the development of public utilities.

The housing stock in CDR is composed of dwellings constructed after liberation since 1945 to 1970. During the years of 1971-1975 approx. 200 000 new dwellings will be constructed. After taking off the waste, the portion of dwellings in the age up to 50 years will expressively increase.

In the scope of new housing stock erected under conditions of socialist society, design of dwelling is gaining qualitatively changed content and forms. This design is becoming the part of social and economic state policy in the frame of whole design of housing problem by national economy plan. It has two basic forms:

- social one, being all-round directly secured by state by means of national committees, local organs of state authority and public service; it is realized to great extent in towns and industrial centres with complete public utilities and basic civic amenities,
- individual one, being secured cooperatively in self-help by prospective house-owners themselves with the help of national committees and with state support in a form of family houses, especially in rural areas. Construction of family housing in the last period, is starting to develop even in towns as a supplementary form.

In the housing stock set up during the last 30 years after liberation, both principal forms are represented almost equally. However in contemporary fifth five-year plan, higher social forms expressively begin to predominate even in Slovakia. Their share is increased in five-year plan for 1971-1975 to 77%.

During the 30 years period, both principal forms of housing are passing through certain changes of development. They are characterized by two stages. The first one is falling within the period of socialist industrial revolution and collectivization in agriculture, up to the year 1953. The second development period of first and second stages is the period of the second development

of the housing construction in the USSR, when the state
policy of housing construction was determined. This programme
is one of the most important documents of the housing construction.

The construction of housing in the USSR, during the first stage of
housing construction, was determined by the need to solve
the problems of housing construction and to meet one of
the most important needs of the population and backwardness of
the housing construction in the USSR, the backwardness
and construction of housing, prior to the second world war. In the
interest of housing construction, housing and migration,
the first time attention of socialist states was paid to
construct industrialisation and to create social conditions for
large-scale production forms of agriculture. Specially at the
beginning of development, industrialisation and collectivisation
demanded great financial means. In addition to it, neither
building materials nor construction forms of building materials
were developed in this period.

In the first stage, during the period of 1930-1950, the housing
is characterized by the forms - mass and individual one. Both
forms used a common material base in traditional materials. It
was mainly brick, cement, stone and timber. Prefabrication,
specially of horizontal elements (ceilings, window lintels etc.)
began to develop. The difference was only in the way of realisation
and financing.

State housing was realized by newly created contractor's build-
ing organizations, national enterprises. Their construction was
organized by national committees. Financing of this form of
building was secured by state, from national budget. Distribution
of dwellings for workers and employees of national enterprises,
for socialist organizations and for socially weak families
having not dwelling (pensioners, disabled persons, families with
low income), was carried out by national committees. Prices of

dwelling was below the level of individual dwellings. The rent was low. The difference between capital expenditures and prices of dwellings, for which no provision, was compensated by state budget. The difference between collection of residential rent and costs for its use and the administration of communal dwelling stock, was also compensated by state budget.

Individual building of family houses was realized by prospective house-owner in a self-help form. They utilized local materials, mainly stone, gravel, sand, timber, and other materials like bricks, lime, cement, iron, timber, roof cover, windows, doors, etc. were bought in a state trade for retail prices. These prices were low, often below the level of own costs. Construction of family houses was realized by prospective house-owner himself in self-help form and with neighbourly help. This help was rendered by neighbours, friends, well-knowns, collaborators from the factories etc. After finishing the construction, or before starting it, the prospective house-owner went to work off the help. Land for this kind of housing prior to end of collectivization, the prospective house-owners had either their own, or they bought it for low price, prescribed by public notice through national committees.

The standard of flats in state dwelling houses, as well as in individual ones, in family houses, proceeded from the economic and financial possibilities of the society of that time, from the development level of material base of building industry and from capacities development of building organizations.

In state housing, in average flats with two rooms, kitchen and facilities were dominating. They were realized in ensembles of multi-floor dwelling houses, with complete public utilities /water, electricity, central heating/ and with basic civic amenities.

In individual building of family houses in villages, three - rooms flats with kitchen dominated. They were, in majority, partly or totally sub-cellared, partly without facilities,

which was designed in the frame of housing objects by septic. They were completely self-contained. Water supply was mostly solved from local wells.

General development of housing in its first stage, during the period of first and second five-year plan in ČSSR and in SSR is characterized by following data of finished dwellings

| Year | ČSSR | SSR |
|----------------------|--------|-------|
| 1949 | 29076 | 13098 |
| 1950 | 38299 | 15954 |
| 1951 | 20924 | 11954 |
| 1952 | 39250 | 18171 |
| 1953 | 28957 | 15326 |
| First five-year plan | | |
| 1949 | 176446 | 74103 |
| 1954 | 38193 | 17084 |
| 1955 | 48790 | 18331 |

By designing the dwelling problem in the second five-year plan, results were obtained mainly in that form that

- the number of constructed dwellings, to compare with first five-year plan has doubled (from 176 000 to 300 000/;

- for basic design of dwelling problem in ČSSR, long-term conception was worked out, according to which, for each family a self-contained flat has to be secured. This conception was projected into third five-year plan for 1961-1965 and into long-term prospect;

- a progressive technology of housing applying all-assembled panel system, enabling to increase the productivity of work and to shorten the time of housing was developed.

Development of constructed dwellings in ČSSR and in SSR, on the whole and according to stages during 1956-1960 is characterized by following data:

| Years | ČSSR | SSR |
|---------------|--------|--------|
| new dwellings | | |
| 1956 | 62 240 | 31 002 |

| | | |
|-----------|---------|---------|
| 1957 | 50 819 | 21 002 |
| 1958 | 50 881 | 22 447 |
| 1959 | 65 985 | 24 033 |
| 1960 | 72 797 | 22 562 |
| 1956-1960 | 314 091 | 132 046 |

Beside it, in w. old states, by additional buildings more than 36 410 flats have been obtained, so that the total number of new flats was 350 441.

During the first 19 years after liberation, in the period of 1945-1960, on Slovakia in a frame of socialist Czechoslovakia, following three basic qualitative changes were brought into life

- industrialization of country has developed, and in this way the unemployment was liquidated;
- collectivization of agriculture and change over to a form of large-scale production was realized, thus removing the base of economic backwardness of rural area;
- following up with the results of industrialization and collectivization, construction of new houses in towns and villages has been increased.

During the period of 1945-1960, more than 620 000 dwellings, i.e. 41 360 dwellings per year, as a trend from 30 924 dwellings in 1951 to 72 797 ones in 1960 were constructed. During the same period, on Slov. Rep., 262 000 dwellings were constructed, i.e. 17 466 dwellings per year in average, as a trend from 11 954 dwellings in 1951 to 22 912 dwellings in 1960.

New qualitative possibilities of society, following from results of industrialization and collectivization, from development of building capacities and new technologies of construction, opened during the first 19 years of after-war construction, allowed to mark out new ideas and tasks in designing of housing problem.

According to programme of the design of housing problem in ČSSR from 1959, long-term investment programmes of housing,

and a wide range of living conditions - all plans have been elaborated. The investment plans contained number of dwellings, amount of utilities and maintenance of flats, construction of flats according to state. Construction of flats and their structure were also a considerable part of investment program.

Considerable part of program for solving housing problem was the solution of the self-employment of structural engineering for designing in civil construction. Development of production of materials for building. Technical cooperation of civil building and construction; adoption of frame-wall panels for construction of walls in houses which were assembled by growing on land or building site.

Program of basic design of housing problem in USSR, from 1959, required to realize a series of arrangements especially in the area of financing, and technical and social policy.

Growing program of housing, required to mobilize extend new financial sources.

Therefore these areas of housing, from the first stage period up to 1980 were reevaluated with the aim that beside the increasing financial part of state, also that one from the side of population could be increased for design in the housing problem. From these reasons, another form of housing, called cooperative housing, originated during this period. Participation of state in individual construction of family houses was also reevaluated with the aim of its help.

They are two variants of state housing. It is a question of communal /state/ and enterprise dwellings. The difference between communal and enterprise housing is in the way of financing and allotment of flats.

Construction of commercial dwellings is financed by national committees directly from the state budget. Flats are allocated to applicants for dwelling, according to law valid for

... of non-return ... contribution ...

... centers of ... membership ... deposited ...

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1. The first condition is that the borrower must be a resident of the country.

2. The second condition is that the borrower must be a citizen of the country. The amount of the loan is Rs 15,000. The interest rate is 10% per annum. The loan is to be repaid in 10 years.

3. The third condition is that the borrower must be a resident of the country. The amount of the loan is Rs 15,000. The interest rate is 10% per annum. The loan is to be repaid in 10 years.

4. The fourth condition is that the borrower must be a resident of the country. The amount of the loan is Rs 15,000. The interest rate is 10% per annum. The loan is to be repaid in 10 years.

5. The fifth condition is that the borrower must be a resident of the country. The amount of the loan is Rs 15,000. The interest rate is 10% per annum. The loan is to be repaid in 10 years.

6. The sixth condition is that the borrower must be a resident of the country. The amount of the loan is Rs 15,000. The interest rate is 10% per annum. The loan is to be repaid in 10 years.

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Part Two

... In the ... plans, ...

... of all participants
of the ... national
committee, ... military-contractor's
organization.

In ... national commit-
tee ... administration on trust-
... investor functions of housing,
they secure ... of plots for housing
and civic ... public utilities for these lands. They
distribute ... according to needs of develop-
ment of production ... housing law, and accord-
ing to urgency of need and social situation of applicants.
They manage the enterprises of housing economy for administration
of communal housing, stock, and securing maintenance and
general repairs.

In the frame of investor function, public committees are
exercising planning and financing of housing, and in great part
public utilities of water-supply, transport and energy. They
direct planning, such as ... for dwelling and
civil buildings, ... project preparation
of dwelling ... of civic amenities and
... of public utilities.

... of national
committees ... assemblies. These lists
contain basic technical and economic data about individual
and ... according to
... organizations,
... organizations

Planning of ... is
used only for communal, ... housing.
Planned ... of housing.
Individual ... of housing
of national ... and ... houses.

and in articles of building, which is for building of
 of houses to secure a better in the area of public stocks
 and in the area of building, etc.

- to build the housing and construction financing;
- to build public utilities for dwelling, especially of communal,
 cooperative and multiple housing, etc. and for building of
 public housing,
- to build public utilities which is part of complex
 housing,
- communal public housing, etc. contribution for cooperative
 housing,
- non-profit housing for cooperative house-owners.

Since the beginning of the program, the construction of housing
 in the public design in 1955, it has been carried out by in-
 creasing the number of flats, etc. and by improving the standards
 of the period of third and fourth five-year plan 1961-1970. In
 individual periods, the results are as follows:

| Year | CSZK | CSK |
|-----------|---------|---------|
| 1951-1955 | 48 511 | 152 445 |
| 1956-1960 | 405 25 | 125 32 |
| 1961-1970 | 847 741 | 322 058 |

The intensity of housing in the area is as follows:

| Year | number of flats per dwelling for 100 inhabitants | in CSK | in CSZK |
|-------------|---|--------|---------|
| 1951 - 1955 | 5.1 | 5.1 | 5.5 |
| 1956 - 1960 | 6.1 | 6.1 | 7.12 |
| 1961 - 1970 | 6.6 | 6.6 | 7.55 |

The higher intensity of housing on Slovakian area in CSZK follows from
 better housing standards and lower dwelling standard than in
 Czech area. By higher intensity of housing on Slovakian these
 differences are gradually getting balanced.

Beside increase in the number of living dwellings, also their quality improved. In 1970, all dwelling, constructed in state, communal, cooperative and enterprise housing were connected with electric supply, furnished with bathrooms, water supply and decentralised. Also the interior equipment was improved.

Equipment of dwellings in state, cooperative and enterprise housing, was made the following development:

| Type of equipment | Share in % of flats finished in current year | |
|---|--|------|
| | 1961 | 1970 |
| Gas | 75.8 | 97.7 |
| warm water | 88.9 | 98.9 |
| Central heating | 85.4 | 98.0 |
| Built-in furniture /kitchen lines, cupboards in hall etc. | 90.9 | 93.8 |

Standard level of living has also gradually increased. The average living area of rooms in new housing increased from 367 m²/flat in 1961 to 42.4 m²/flat in 1970. Average number of living rooms of one flat increased from 1.14 in 1961 to 2.49 of living rooms in average one flat in 1970. According to standard, as a living room is not concealed and sun roof being directly illuminated, ventilated and equipped with heating elements, of floor space 8 m² per room.

Share of flats in state, cooperative and enterprise housing is characterised by following data:

| Number of rooms | Share of flats in %, finished in | |
|-----------------------------------|----------------------------------|------|
| | 1961 | 1970 |
| Bachelor flats | 4.4 | 5.3 |
| 1 living room + kitchen | 4.7 | 9.6 |
| 2 living rooms + kitchen | 69.2 | 46.9 |
| 3 and more living rooms + kitchen | 21.7 | 38.2 |
| Total | 100% | 100% |

In the development of a high level of living, most flats and family houses, having reached a high level, are significantly participating. In 1970, 96.2% of inhabited dwellings in family houses and flats, 91.6% were connected to electric net, 51.5% had central heating, 49.5% were equipped with water main, and 98.2% sewer lined. In 1970, average area of living rooms of one flat in family houses was 55.8 m².

Participation of inhabitants in flats, according to number of living rooms, in family houses and flats in 1970 was as follows:

| Size of flat | Share in % |
|--|-------------|
| One living room and kitchen | 0.9 |
| Two living rooms and kitchen | 5.5 |
| Three living rooms and kitchen | 27.5 |
| Four and more living rooms and kitchen | 41.0 |
| Total | <u>74.9</u> |
| | 100,0 |

In 1970 census of people, houses and flats was executed, and it brought a survey of living standard. The level of living expressed by number of permanently inhabited dwellings and by number of census households, in census towards 1. December 1970 was as follows:

| Index | USSR | USSR | SSR |
|---|------|------|------|
| Number of permanently inhabited flats /in thousands/ | 240 | 3089 | 1151 |
| Number of census households in total /in thousands/ | 4410 | 2975 | 1355 |
| Number of census households without own flat /in thousands/ | 570 | 386 | 184 |
| Households per 100 flats | 88.1 | 88.9 | 81.2 |

Although relative extend building of new dwellings with modern equipment and with relatively high glazery standard, considerable improvement of qualitative level of living has been reached in 1951-1970, as it can be seen from the comparison of the following indicators:

| Indicator | Year of census | USSR | USSR | USSR |
|---|----------------|------|------|------|
| 1. Average number of living rooms for one flat without kitchen | 1961 | 1.8 | 1.8 | 1.7 |
| | 1970 | 2.1 | 2.1 | 2.1 |
| 2. Participation of flats with three and more living rooms / in % from total housing stock, without kitchen | 1961 | 17.1 | 19.0 | 11.8 |
| | 1970 | 30.8 | 30.2 | 32.2 |
| 3. Average living space of flat without kitchen / m ² | 1961 | 34.7 | 35.3 | 33.2 |
| | 1970 | 39.4 | 39.2 | 40.0 |
| 4. Average living space of flat for one person | 1961 | 9.7 | 10.3 | 7.9 |
| | 1970 | 11.0 | 11.3 | 10.1 |
| 5. Average number of persons for one living room without kitchen/ | 1961 | 2.02 | 1.86 | 2.52 |
| | 1970 | 1.50 | 1.51 | 1.85 |
| 6. Participation of flats with central heating / in % from total housing stock | 1961 | 8.2 | 8.4 | 7.4 |
| | 1970 | 21.4 | 30.1 | 27.3 |

In spite of steady building of new dwellings in ten years period from 1961 to 1970, a total of 648 000 dwellings were constructed, quantitative level of living did not change considerably. It follows from the data of the census during this period, the net increase of flats was very low and the number of permanently inhabited flats has increased from 3829 000, by 411 000 flats in 1961, to 4-40 000 thousands of flats in 1970. This state was caused by high volume of housing stock growth about partly by physical liquidation of flats and partly by using flats for non-dwelling purposes. Part of this decrease was caused by joining of two small flats into one, which, though living of some families is approved, but the accommodation in self-contained flat of those families living no flat is denied. Another reason for it was used for covering of decreases. Therefore, in the last period, arrangements for purposeful waste regulation of housing stock have been made.

On the base of analysis of housing development in USSR in 1961-1970, experts from USSR as well as of USSR and SSR, have made

arrangement for systematic design of housing problem, under systematic quality improvement of living spaces. These arrangements were included into fifth five-year plan of housing. Fifth five-year plan is characterized by increasing number of newly erected flats to 527 000, against 450 000 erected in period of 1966-1970. Successive settlement of living backwardness in ČSR, where during the period 1971-1975, 127 000 new flats, against 160 000 flats in 1966-1970 will erect, is thus secured. Tasks of fifth five-year plan are systematically being over-passed. It is expected that in a period of 1971-1975, in ČSR, about 520 000 and in SSR about 200 000 flats will be added up. Already in first years of fifth five-year plan, intensity of housing has expressively increased, when intensity of housing in ČSR surpassed the value of 8 flats and in SSR 9 flats per thousand inhabitants.

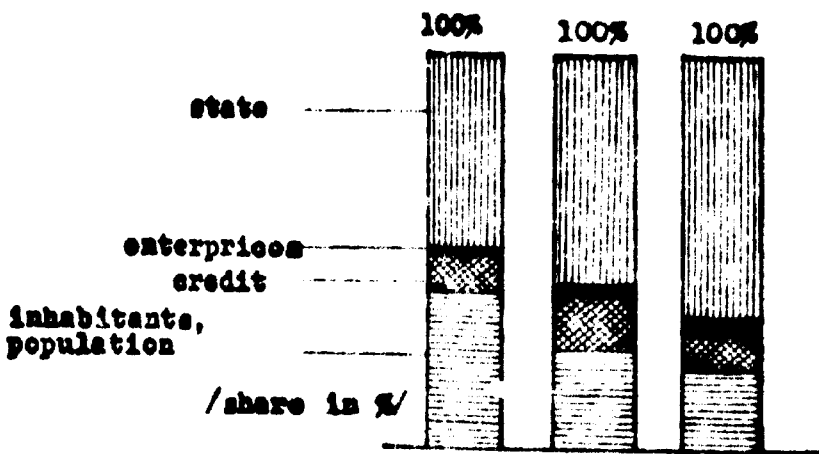
Total increase of housing is reached in social forms of communal, cooperative and enterprise housing, which is secured by contractors' engineering organizations and dwelling assemblies with complete civic amenities and public utilities. At the same time, building of family houses is stabilized by plan on attained level, but the building in ensembles, according to qualitative projects, by progressive technologies and with public utilities and civic amenities is qualitatively improving.

Composition of flats according forms in improved fifth five-year plan is characterized by following data:

1971 - 1975

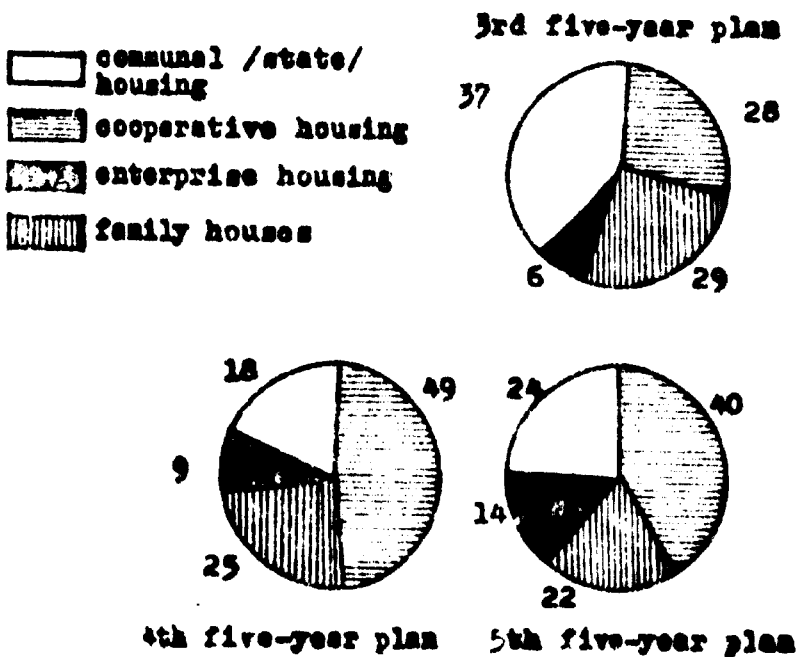
| Form of housing | ČSSR | share in | ČSR | share in | SSR | share in |
|---------------------|---------|----------|--------|----------|--------|----------|
| | | % | | % | | % |
| State/communal/ | 126 300 | 23.5 | 83300 | 23.8 | 43000 | 23.0 |
| cooperative housing | 212270 | 39.7 | 143670 | 41.0 | 69600 | 37.2 |
| enterprise housing | 85 250 | 15.9 | 60850 | 17.4 | 24400 | 13.0 |
| family houses | 112 180 | 20.9 | 52180 | 17.8 | 50000 | 26.2 |
| Total | 537 000 | 100.0 | 350000 | 100.0 | 187000 | 100.0 |

In the 3rd, 4th and 5th five-year plans, the share of housing financing from the state budget and credit enterprises has increased. In the 3rd five-year plan, the share of the state budget was 49.1%, of credit enterprises 29.1%, of family houses 11.8%, and of communal housing 10.0%. In the 4th five-year plan, the share of the state budget was 49.1%, of credit enterprises 29.1%, of family houses 11.8%, and of communal housing 10.0%. In the 5th five-year plan, the share of the state budget was 49.1%, of credit enterprises 29.1%, of family houses 11.8%, and of communal housing 10.0%.



1/ Share on financing of housing in 3rd, 4th, and 5th five-year plan

2/ Housing structure according to forms in years of 3rd, 4th and 5th five-year plan



... while in the process of ... it is ...
... events is ... of ... of ...
It allows the ... of ... to ...
... of ... to ... of ...
... of ... of ...
... of ...

... concept-
... level of ...

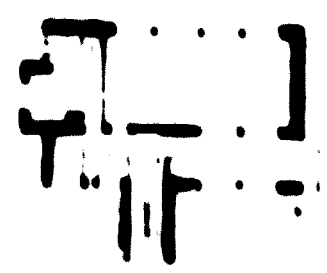
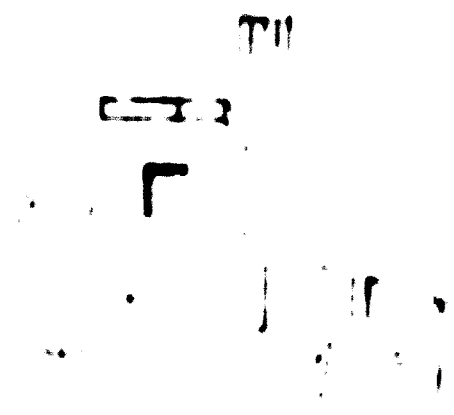
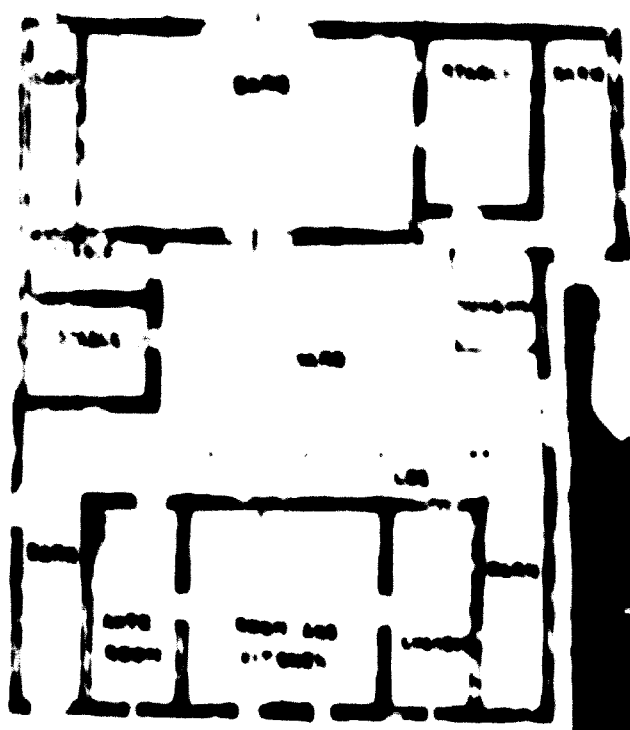
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Plan of a villa in the style of the 1920s, showing the layout of the rooms and the location of the entrance.

Elevation of the villa, showing the exterior walls and the placement of windows and doors.



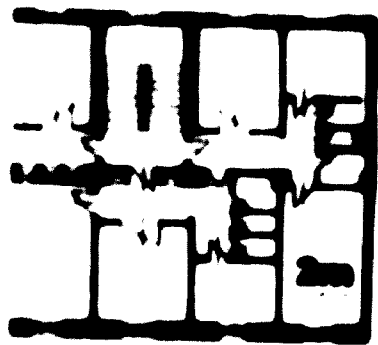
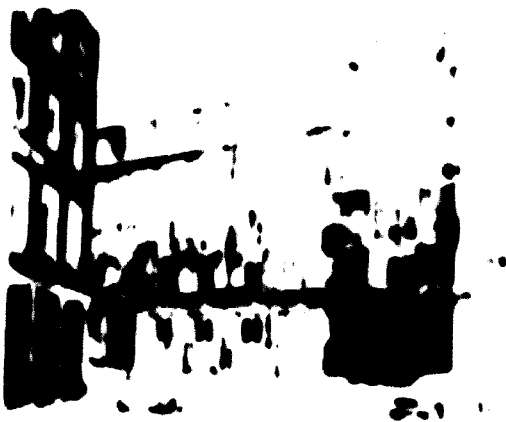
A villa of a middle-class citizen, built in 1927

Development of the "BA" System
 (1945 - 1950)

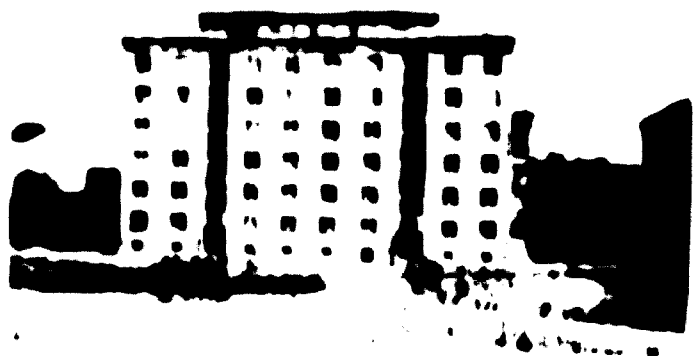
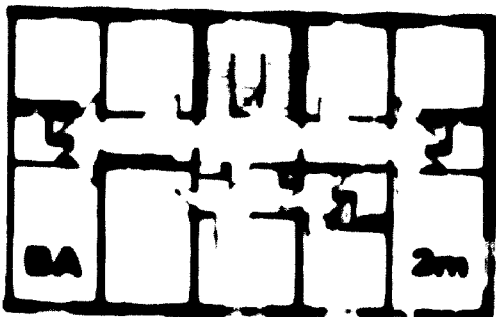
Model "T-10"



Model "T-10"

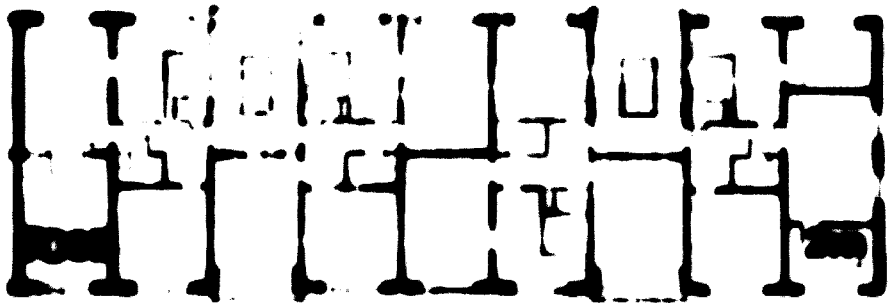


The first "BA" building house
 folded from panels, -
 system "BA"



A character set type in the station, as
in the series of "X"

The layout of the double-house "X"

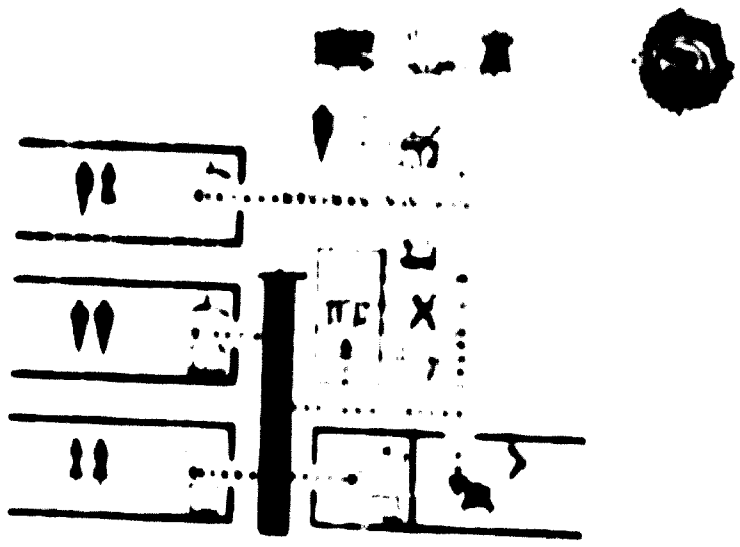


An 6-story building
constructed from panels / "X"



The new building - the 'City 10' - is a mass-produced
of dwelling-units in the second half of the twentieth and in
the beginning of the eighteenth year.

The diagram of the dwelling



Four /point/ -house section, layout of a typical floor

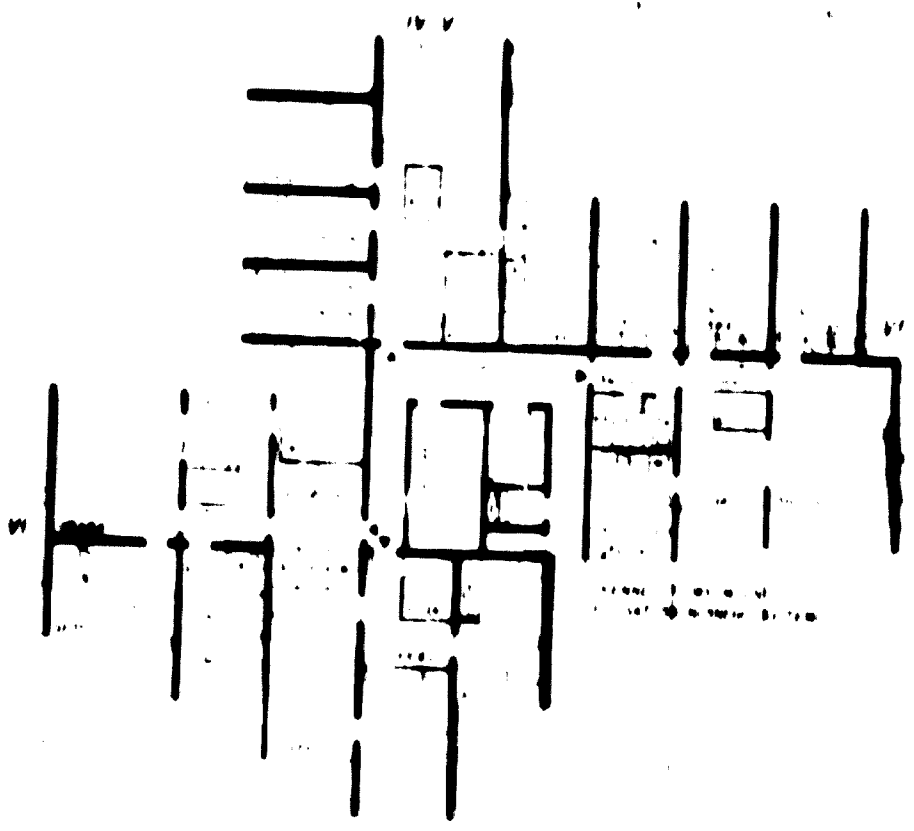


Figure 1 - Letter 'H' in the 'HKS' handwriting system

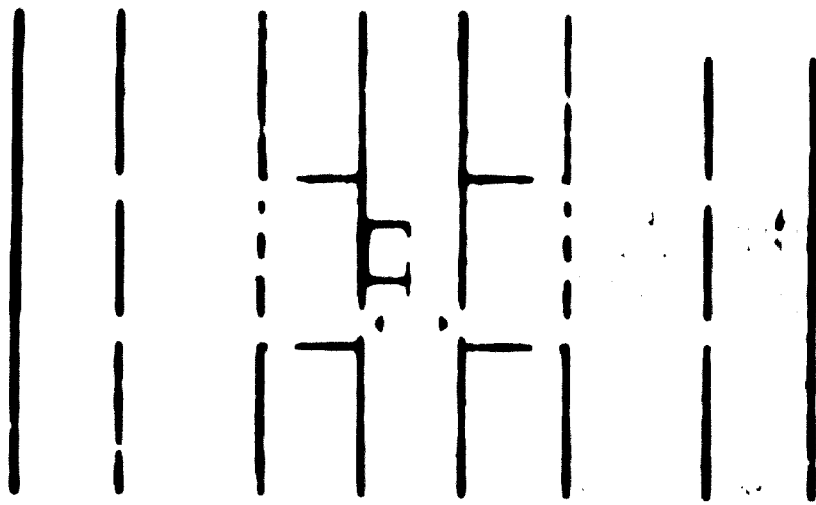
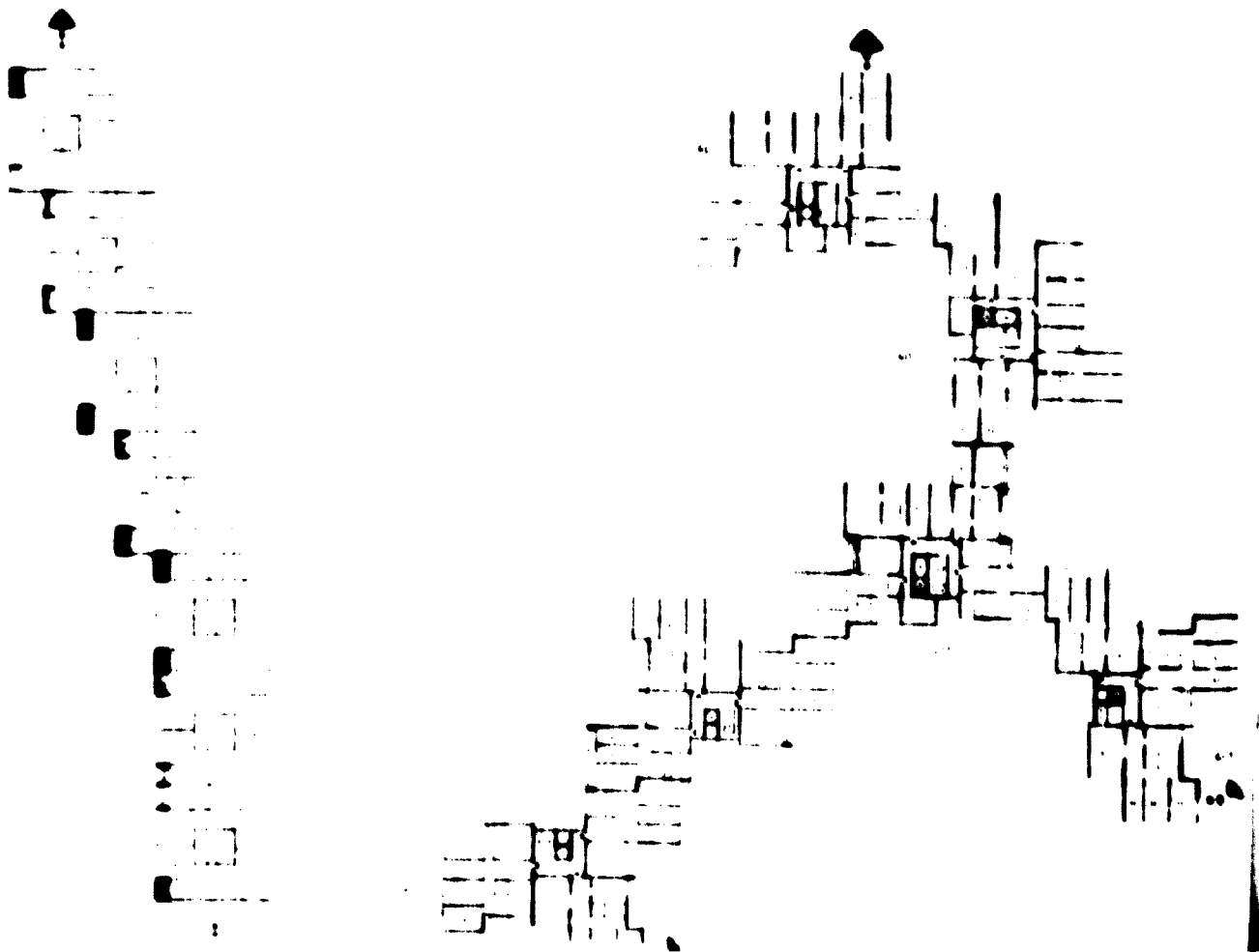
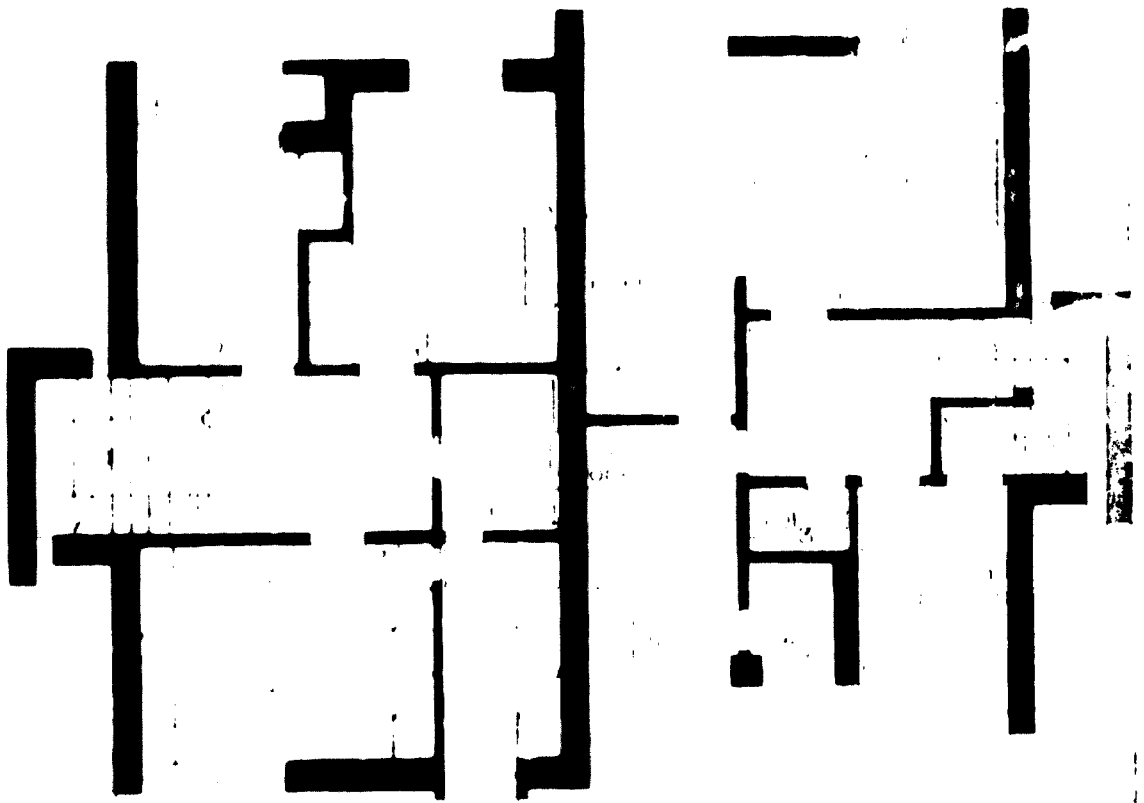


Figure 2 - Learning conditions example based on the 'HKS' system

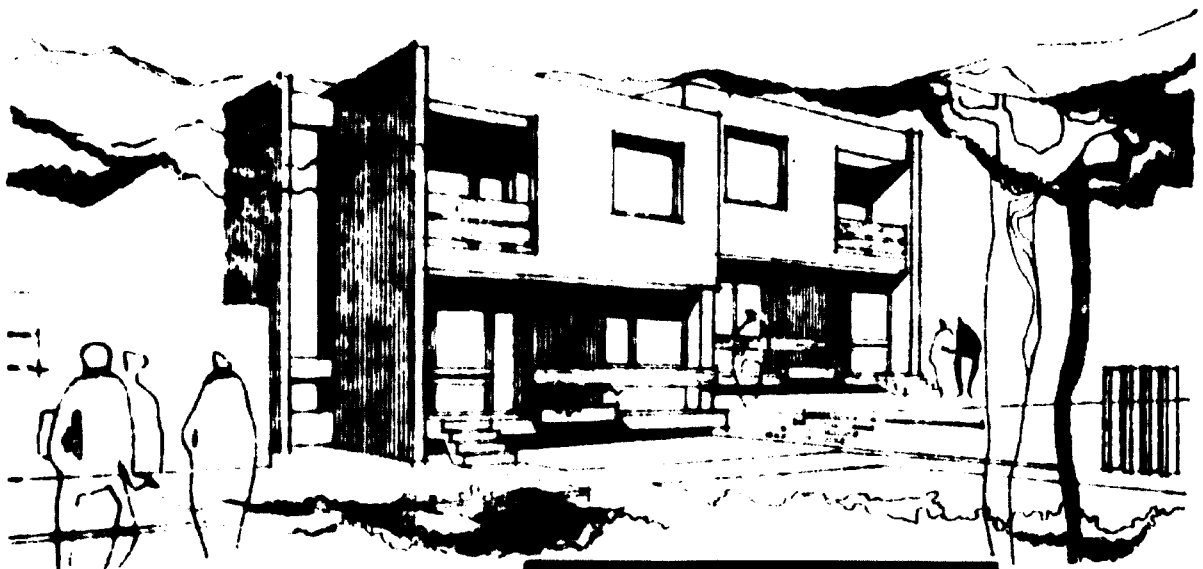


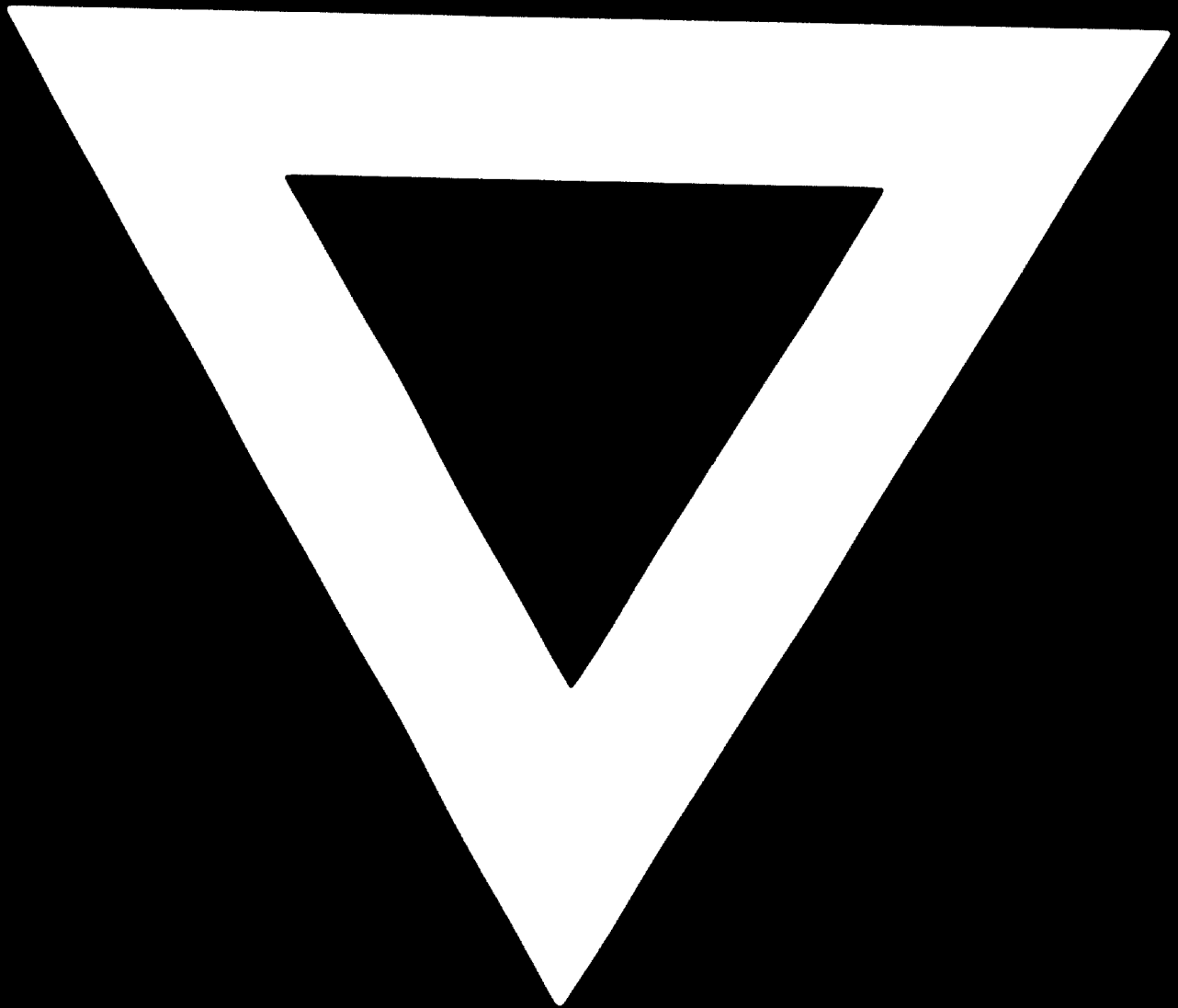
Example of new family houses built in the present time



1st story

ground floor





76.01.15