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COMPARATIVE COSTS
OF CONSTRUCTION⁷³

We have already noted that the organization of a socialized way of servicing the population leads new cadres into productive labor. At the present time Gosplan RSFSR has made a rather thorough accounting of the population of the workers' settlement at the Magnitogorsk industrial combine.

These calculations yield the following picture.

The general number of workers employed in the industrial combine is taken as 11,400. This number of workers in the future will be almost doubled, since at the present time the increase in volume of the productive task of the combine has already been predetermined. However, this change will hardly influence our calculations, since all other figures will increase in proportion to the increase in the number of workers.

Assuming this number employed in

production at Magnitogorsk—both workers and service personnel **resident in settlements of the usual type**—it will be necessary to have about 3,500 workers and service personnel employed in servicing the soviet, communal, trade, and similar activities and institutions. Taking into account that the average family composition for the Union SSR, according to TsSU, consists of: for metal workers 3.7–3.8, for service personnel 3.6–3.7, and single persons comprise 12–14% in this branch of production—we arrive at the conclusion that **the whole population of the workers' settlement at Magnitogorsk will be from 49,500 to 51,000 people**. This number of inhabitants is the minimum, since in analogous settlements in the Urals (Motovilikha, Votkinskii Plant, et al.) the composition of families of the inhabitants varies from 3.8 to 4.1, which further raises the population by 10%, i.e., to 55,000 people.

Taking a minimal figure of the population of Magnitogorsk under conditions of usual construction at 50,000 people, we will need a total living space:

At a norm of 9 m³ per person: 450,000 m³

at a norm of 6 m³ per person: 300,000 m³

Using a relationship of volume to living area established by VSNKh as 8, we will have a building volume of:

At a norm of 9 m³ per person:

3,600,000 m³

at a norm of 6 m³ per person:

2,400,000 m³

At a cost per m³ considered normal for

the Ural area as 20 r., **the general cost of construction for residential buildings of the usual type for the Magnitogorsk settlements will consist of:**

At a norm of 9 m³ per person:

72,000,000 r.

at a norm of 6 m³ per person:

48,000,000 r.

If, however, in building Magnitogorsk we could immediately assure the population of all basic forms of socialized services for its most pressing needs, that would allow us to attract a large sector of the employable dependent population into productive work and service institutions and significant activities, and the picture would be entirely different.

Thus, according to the Gosplan calculations of 11,400 workers and service personnel occupied in production, in the servicing there will be employed from 6,500 to 7,000, and the entire dependent population will be from 18,000 to 18,500 as against 15,000 dependents in a settlement of the usual sort.

However, due to the fact that a very significant part of the employable population is usually tied up in domestic tasks, with **socialized services**, there will be the opportunity to draw this sector into production and service activities and institutions, and **the overall number of inhabitants of the settlement would drop to 33,500—31,500 people**. Moreover, due to the peculiarities of the metallurgic industry, this would leave only 1,500 employable people

THE HIGHEST PRAISE MUST BE GIVEN TO THE COMMUNE PRECISELY BECAUSE IN ALL ITS ECONOMIC UNDERTAKINGS ITS "LIVE SOUL" WAS BASED NOT ON ANY PRINCIPLES BUT ON SOLID PRACTICAL DEMANDS.
F. ENGELS

unoccupied, the labor of whom could be put to use in the future in subsidiary agricultural activities.

In this case, given a norm of $8\frac{1}{2}$ – 9 m³ and 1 – $1\frac{1}{2}$ m³ of additional space for service accommodations (cafeteria, library), we would have a usable area relationship of a cubature of 5, resulting in 50–55 m³ of residential space per person.

From the same [Gosplan] calculation indicated above we can calculate the cubature for children's institutions (except for schools, which are excluded from the accounts of both variants).⁷⁴

In this way for a maximum of 33,000 inhabitants in a settlement with socialized services, we will need a maximum of 1,815,000 m³ of all types of residential construction (including nurseries, kindergartens, boarding schools, cafeterias, libraries, etc.) at a maximum cost of 36,300,000 r. at a price of 20 r. per m³ as in the first usual variant. This cost can undoubtedly be significantly lowered through standardization of the dwelling unit, etc.

Thus we see that with identical norms and with identical costs of construction, even without full usage of the total able and working population, the very greatest expense for residential construction of the village with socialized services will be 2 times less than [i.e., $\frac{1}{2}$ as much as] the least possible expense for residential construction of settlements of the usual type.

If the usual settlement is constructed at the least imaginable expense for 6 m³ per person, even then the settlement with socialized servicing will cost 25% less than the "usual" in spite of the fact that there will be almost twice as much available living space

per person. •

In these accounts for both the first and second alternatives, expenses are excluded for administrative, commercial, communal, school, hospital, transportation, and other construction. But, here again, in the settlement with socialized services, much less expense is necessary for construction; thus, for example, in this instance, all expenses are eliminated for the construction of specialized buildings for nurseries, maternity and children's homes, orphan asylums, cafeterias, a large number of commercial buildings, etc.

Moreover, the volume of these structures will be reduced, for instance in hospitals, administration buildings, etc. due to the fewer number of inhabitants and better living conditions.

We draw on the example of the construction figures for Magnitogorsk because they give the most pessimistic accounts for a settlement with socialized services of the living needs of its population:

1) labor conditions in the heavy-metal industry are least auspicious with respect to female labor, which leads to the impossibility of full employment of the able-bodied population, leaving a remainder of unoccupied but employable persons of 1,500;

2) the fact that Magnitogorsk is being built in an isolated site does not present the possibilities which would be available, for example in Stalingrad, through use of an already existing dependent labor force;

3) the climatic conditions of Magnitogorsk demand the adoption of the types of

• For detailed accounts by Gosplan, see Appendix.

construction that are connected by heated corridors which necessitate 5 m³ for each square meter of living area. Under other conditions (for example, in the Crimea, Northern Caucasus, in the Transcaucasus, Turkmenistan, Uzbekistan, Southern Ukraine, etc.) it is possible to use the corridorless system of construction (for example, that proposed by Stroikom RSFSR) which would lower this coefficient to 3.2, i.e., would lower construction costs by 25–35% besides the resultant lessening of costs through lighter construction, the simplification of heating installations, etc.

Thus from these Gosplan figures, it is evident that the construction of dwellings of the socialist type will require significantly less means than construction of the usual type.

This fact has tremendous significance in that it decisively refutes the major argument of the conservative elements of our establishment, who maintain that this type of construction is beyond our means. It is easy to see that this argument is based exclusively on a lack of familiarity with the question. Obviously such figures need experimental verification. However, they show such a "margin of safety" that they can undoubtedly be considered entirely realistic.



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Sotsgorod

The Problem of Building Socialist Cities

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