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**HOUSING IN LENINGRAD:
THE INEFFICIENCIES OF THE PRODUCTION PROCESS**

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ABSTRACT

According to the communist doctrine, every person is guaranteed the right to a home. Every Soviet leader has attempted to fulfil this task, yet the housing problem in the Soviet Union continues to be the most critical of any industrialized country. In 1985 President Gorbachev declared housing a primary objective of his economic restructuring package known to the world as Perestroika. His decree stated that a home must be provided for every family by the year 2000. In order to evaluate the likelihood of Gorbachev obtaining this goal, field research in Leningrad was undertaken to analyze the supply side of housing production. Several critical obstacles were discovered to meeting this goal in Leningrad: capital investment has steadily decreased over time, the centralized production process is highly inefficient, extreme material shortages exist, the majority of the labor force is unskilled.

During the last three years, the multitude of reforms passed under Perestroika have had a counterproductive effect. The general confusion created at both the state and local level has caused existing systems to break down. In order to alleviate the housing shortage, changes must occur at both the state level, through restructuring the basic economy and creating price mechanisms, and at the local level. Specifically, in Leningrad the following initiatives must be implemented: the centralized production system must be dismantled, alternative materials to concrete must be developed, the labor force must be trained and educated to develop skills, access to capital must be made available to individuals and enterprises.

The inefficiencies of the housing production process are mere symptoms of the larger problem, the basic structure of the political and economic system. Due to the complexities involved in creating a new system, the short term perspective for meeting the housing demand is not promising. However, if Leningrad is successful in implementing the initiatives outlined above, change will occur.

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INTRODUCTION:

The first premise of all human existence, is ... that man must be in a position to live in order to make history. But life involves before anything else eating and drinking, a habitation, clothing and many other things.

Marx¹

The peoples' right to housing is guaranteed by Article 44 of the Soviet Constitution ²

The government of the Soviet Socialist Republic has for many decades sought to alleviate their housing shortage by setting ambitious goals. In 1985 during the 27th Party Congress, President Gorbachev declared such a goal for his government: every family in the Soviet Union is to have a home by the year 2000.

While Gorbachev's declaration on housing may sound like a final cure to the ailing industry, historical precedents indicate otherwise. In 1961 the XXII Party Congress published a doctrine which had a section entitled, 'Solving the Housing Problem and Conditions of Daily Life'. "In this document the Party leadership noted that the most acute problem to be solved, if the standard of living of the population were to be raised, was housing. It declared that by 1971 the housing shortage would have to come to an end, and that those families who were still living in overcrowded and generally poor living conditions in 1961 would have new flats."³ Today however, "...the USSR has the worst housing shortage of any industrialized nation."⁴ Obviously the goal set by the XXII Party Congress was never realized.

¹ Marx K. and Engels F., *The German Ideology* (London, Lawrence & Wishart, 1965), pg. 39

² Wolfe, Gregory B., *Some Observations on Housing in the Soviet Union and the Peoples' Republic of China*, 1988, pg. 1

³ Andrusz, Gregory D., Housing & Urban Development in the USSR, (State University of New York Press), pg. 1

⁴ Morton, Henry W., *The Housing Game*, 1985, pg. 61

In order to understand the difficulty of achieving this most recent goal, it is imperative to understand the magnitude of the current housing problem. Field research specific to Leningrad revealed that in 1985 there were 1,660,000 families (or 4,90,000 inhabitants) living in 1,320,000 existing flats in greater Leningrad. 125,000 of these families (or 400,000 people) had less than 5 square meters per person. In addition, 655,000 families, or roughly 39% of the population lived in communal flats where the bathroom and kitchen facilities were shared.⁵ According to the LENNIITAG Institute, 660,000 housing units must be constructed in Leningrad between 1985-2000 if Gorbachev is to achieve his goal of providing a home for every family in that city. Michael Berezin, the Director of Research at LENNIITAG, noted that current production of housing in Leningrad, which is operating at maximum capacity, is close to 27,000 units/year. In order to meet Gorbachev's goal, production must nearly double to 44,000 units/year.

Is Gorbachev and his grand plans for Perestroika⁶ really any different than any other leader of the Soviet Union? Are his plans to construct 25 million new housing units in the Soviet Union feasible given the existing construction system, the lack of infrastructure, the poor state of the Soviet economy and the notorious lack of building materials which has consistently plagued the USSR? Are these inefficiencies that effect the housing problem merely a symptom of a larger problem?

This paper, through a review of historic precedents and an analysis of the existing centralized construction process in Leningrad, concludes that the provision of housing for every family by the year 2000 is impossible. The following specific reasons why Gorbachev will not meet his goal for this city can be cited:

⁵ Berezin, Michael, Research Director LENNIITAG Institute, Leningrad.(June 6, 1990 and June 12, 1990)

⁶ Restructuring of the economic management of the Soviet Union - Abel Aganbegyan, Inside Perestroika. The Future of the Soviet Economy, Harper and Rowe Publishers 1989, pg.1

- The centralized control over all housing production is highly inefficient. The industrialized concrete panel system, once viewed as the solution, is now a major source of the production problem.
- Material shortages are extreme. Other than the basic materials for the manufacturing of concrete panels, building materials are virtually nonexistent. Wood for example is not available.
- Labor is unskilled and lacks motivation. Construction laborers are generally untrained rural workers.
- The Infrastructure is in a sorry state of decomposition. Costs for new housing construction will be matched by costs to improve utilities and other infrastructure elements.
- Recent reforms have served only to increase confusion. During the past three years, Leningrad has seen an acceleration in the deterioration of housing and infrastructure. There is no evidence that current reforms are bringing relief.

In order to overcome the housing shortage, change must take place, both at the state level, through the restructuring of the economy of the country and the creation of pricing mechanisms, and at the local level. The following delineates the prerequisites to change specific to Leningrad:

- **THE CENTRALIZED SYSTEM** - The system for planning and constructing housing must be realigned. A multiplicity of house producing enterprises must be established. These enterprises could be owned by the local government, co-operatives, and hopefully private organizations. Joint ventures could also be utilized.
- **BUILDING MATERIALS** - Alternative materials to concrete must be developed. Wood, due to the abundance of forests in Russia, would be a logical choice.

- **LABOR** - A means for training and educating the labor force must be implemented. This may require foreign assistance. There is no construction labor force in the entire country with experience other than in pre-cast concrete.
- **ACCESS TO CAPITAL** - A system must be established which could extend mortgages and loans to individuals and enterprises.

While this list of prerequisites for change represents the most glaring obstacles inherent in the system at the local level, it is by no means inclusive. The housing problem is of such magnitude that local governments alone will not be able to meet the back-log. State resources must be utilized. An added complexity lies in the necessity of implementing so many of these initiatives simultaneously if they are to be effective.

This paper will explore the following:

- **Chapter I** - A historical overview of housing in the Soviet Union since the advent of communism will emphasize historical precedents. The declining investment of capital throughout Soviet history has played a significant role in the inability to meet housing demand. Recent reforms passed by Gorbachev's government have made attempts to change history, but with little effect.
- **Chapter II** - This chapter reviews the state role in housing production, with an examination of the inefficiencies that a centralized system breeds.
- **Chapter III** - Opportunities for alternative means of housing production do currently exist. They are co-operative enterprises, self-initiated builders (individuals and families), and foreign contractors. These three groups are analyzed in terms of their current contribution to the housing industry, how they can be utilized in the future to alleviate shortages and increase the construction quality. Access to building materials, the lifeline for these builders, will also be discussed.

- **Chapter IV** - A look at the lessons learned, and the future forecast for housing in Leningrad.

Research for this thesis was restricted by time and available resources and to conditions in Leningrad. Information was obtained through interviews with individuals actively engaged in the planning and construction of housing in Leningrad. Interviews were conducted through interpreters with varying degrees of English proficiency. Although every effort has been made to correlate information, there may be aspects of these interviews which have not been fully understood.

CHAPTER I. A PROFILE OF HOUSING PRODUCTION

Section 1.) Historical Perspective

“According to Lenin, a rich man’s flat was one in which the number of rooms was equal to or exceeds the number of persons permanently living there.” ⁷

The revolution of 1917 abolished all private ownership on ideological grounds. During the early years of communism, housing policy consisted of redistributing space rather than constructing new buildings. Lenin saw this as a means to redistribute the wealth on an equitable basis.

During the twenties, workers returned to live in cities to capitalize on the industrialization which was taking place. By 1926, socialized housing accounted for only 47.7% of the per capita living space while personal housing made up the remainder.⁸ (Personal housing in this context refers to the assignment of rights to land and houses. These rights last in perpetuity and are transferable. However, these rights can not be bought or sold legally, but in Leningrad it was evident that a housing market exists through the shadow market.) The urban population during the twenties blossomed from 20.9 million in 1920 to 26.3 million in 1926. The increase in demand caused the per capita living space to drop from 6.4 meters in 1923, to 5.8 meters in 1926.⁹ As the housing shortage became more critical, new solutions were sought.

During the 1930’s, the concept of industrializing housing production was introduced by German architectural teams. It was during this time that the Bauhaus was espousing it’s theory of the benefits to mankind of the machine age. Their ideology prefaced a celebration of the combination of art and technology. An exhibition by Mies Van

⁷ Andrusz, pg 13

⁸ Andrusz, pg 22

⁹ Andrusz, pg 17

de Rohe in 1927, glorifying worker housing, "Weissenhof Werkbund", was a forerunner of this movement. Simultaneously, Le Corbusier was designing his "Machines for Living" in France. Both of these projects embraced the worker as hero and served as an appropriate model for the communist cause. As communism and socialism gained momentum, the artifacts of the bourgeoisie were being eliminated. "It had been decided...that pitched roofs and cornices represented the 'crowns' of the old nobility, which the Bourgeoisie spent most of their time imitating. Therefore, henceforth, there would be only flat roofs;...no cornices, no overhanging eaves".¹⁰ The new architectural style of the Bauhaus sought to be honest both in material usage and architectural form. Architects during this time even renounced consumer preference. "The architects acted as the workers' cultural benefactors. There was no use consulting [the consumers] directly, since as Gropius had pointed out, they were as yet intellectually undeveloped"¹¹. The Bauhaus was thus one of the seminal influences for the advent of industrialized housing production in the USSR.

The development of an industrialized housing form appeared to be the panacea to cure all the ailments of housing in the 1920's and 30's. By utilizing a centralized political system to oversee the allocation of building resources and the development of technology, it was thought that great economies of scale could be achieved. Three significant historical aspects, as cited by Gregory Andrusz, significantly contributed to the evolution of the industrialized construction process: 1).the economic backwardness of the first socialist state; 2).the existing low level of education and shortage of qualified workers; and 3).an external threat which necessitated a high level of expenditure on defence.¹² During the second World War, bombing destroyed roughly one-sixth of the country's urban housing stock, with another one-sixth severely damaged.¹³. This

¹⁰ Wolfe, Tom, From Bauhaus to Our House, Washington Square Press 1981, pg. 24

¹¹ Wolfe, pg. 32

¹² Andrusz, pg. 3

¹³ Andrusz, pg. 19

massive destruction heightened the magnitude of the housing shortage. In 1948, in order to combat the ravages left by the war, the government issued a decree to encourage individuals to construct their own homes. As history will reveal, this decree, was nothing more than a verbal proclamation; no mechanism for facilitating individual builders was ever implemented.

It should be noted that under Stalin's regime (1929-1953), traditional methods of constructing buildings on site remained in place. Trades such as brick layers, stone masons, and building craftsmen were still utilized. However, Stalin's era was characterized as creating the 'wedding-cake' style which epitomized gothic revival. Although the 'wedding-cake' utilized high caliber architecture and quality construction methods, the time consuming designs and the use of materials such as marble and granite, were classified as lavish and unnecessary in the face of an extreme housing shortage.

By 1950, self-initiated builders were able to contribute 30.9% of the new housing stock which amounted to 6.4 million square meters.¹⁴ However, the state authorities realized that massive amounts of housing were needed immediately and that production must be significantly increased. Under Khrushchev (1953-1964), the state increased its efforts to build factories for the production of housing components, thus the panelized system of production was firmly implanted. These factory-built panels overcame three main difficulties in housing production; lack of skilled workers, lack of standardization of previous housing forms (it was feared that this was creating inequality), and lack of ability, due to slow production, to meet the demand. A paramount factor of the communist doctrine calls for the equality of all individuals. This translated into maintaining similar standards of living for the populace. Industrialization met these challenges; it required fewer workers than traditional methods, and little or no skill was needed. The repetition of the panel sizes allowed every housing unit to be created

¹⁴ Andrusz, pg. 21

exactly the same so that equality could be maintained, and lastly, the process was very expedient.

During the sixth five year plan (1956-1960), while the state was mobilizing factories for production, there appeared to be strong simultaneous support for the self-initiated builders. A goal was set for 34%, or 113 million square meters to be built by individual means. Unfortunately, the state's words fell hollow; no means for implementation was established to support this decree. For example no mechanism was created to allocate financial and material resources to the self-initiated builders. The local agencies were also less than helpful; they allocated plots of land in areas with no public infrastructure, many in fact were located in swamps. As a result, the self-initiated builders were able to construct only 25% of the housing stock during this period. It became apparent during the early sixties that the state lacked commitment to the self-initiated builders. Funds and materials were being channelled into the factories for the production of concrete panels. In 1963 the state closed the door on the builders by prohibiting the production of single family homes in cities with less than 100,000 people. By 1969 construction by self-initiated home builders dropped to 10.4%.

Towards the end of the sixties, planners, architects and bureaucrats alike recognized that the mass produced concrete panel system did not create a satisfactory environment. They also realized that this process dictated a standard of living which fell well below that of Western countries. The standardization of the housing created equality amongst the people, but it is equality in poverty.¹⁵ However, change required money and the military budget was of top priority. It drained all financial resources and limited technical advancement in all areas outside of defense. During this time small improvements were made to the building facades; ceramic tile was added to the exteriors and building forms were altered slightly.

¹⁵ Nikolilashenko, Boris, Deputy Chief of GENPLAN, Leningrad (June 13, 1990)

These changes increased the cost of construction, but not the quality of life for the residents.

Capital Investment in Housing in the USSR, 1918-1980

(in comparable prices) - (figure 1)¹⁶

Year	Actual Investment (millions rubles)	Percentage of total Capital Investment
1918-28	2835	64.3
1st FYP (1929-32)	1346	15.4
2nd FYP (1933-37)	2516	12.8
3rd FYP (1938-41)	3470	17.0
1941-1946	3073	15.0
4th FYP (1946-50)	9206	19.4
5th FYP (1951-55)	17794	19.8
6th FYP (1956-60)	39454	23.5
7th FYP (1961-65)	45218	18.6
8th FYP (1966-70)	59696	17.2
9th FYP (1971-75)	75354	15.3
10th FYP (1976-80)	86305	13.6
1976	16504	14.0
1977	17013	13.9
1978	17522	13.5
1979	17332	13.3
1980	17934	13.4

SOURCES: *Narodnoe khozyaistvo SSSR v 1978g.*, pg. 342-3

N. kh SSSR v 1979g. pg. 366-7

N. kh. SSSR v 1980g., pg. 336-7

By the 1970's, capital investment for housing was substantially increased from 59,696 rubles during the 8th five year plan (1966-70), to 86,305 rubles during the 10th five year plan (1976-80). However the budget, as a percentage of total capital investment fell from 17.2% to 13.6%. (See figure 1). Much of this had to do with the difficulties involved with changing the pre-cast concrete panel system. The industrialized process had created a huge infrastructure which was inflexible to other building systems. The low skill level of the workers, and the lack of incentive to explore new systems had also contributed to the stagnation of the system. In addition, the seventies, under the reign of Brezhnev, was a time of great corruption. Brezhnev's 'more lenient rules' allowed for the formation

¹⁶Andrusz, pg. 20

of a 'building mafia'. The builders (members of the STROICOMMITTEE, to be explained in Chapter II), like most Soviet agencies, have quotas which must be fulfilled. In their case, quotas were determined by the amount of money spent. The perversity of this system encouraged builders to pursue the most costly construction methods at minimum effort; production thus suffered.

Meanwhile, the self-initiated builders, who provided almost one third of the housing in 1950, were almost demobilized by the eighties. In 1981, individuals were responsible for erecting 8.0% of the housing stock. The state, by not establishing any means to obtain financing or building supplies, virtually eliminated this viable source of production.

Today, there is considerable debate about the continued use of the high rise concrete panel method. According to Valentin Nazarov, the director of GENPLAN in Leningrad, there are two main reasons why the state will continue to build these high rise structures. First, the high rise allows for greater density of people and services. For example, markets and schools are located within a short walking distance of most apartment buildings. Secondly, because there are very few cars, the general populace must rely upon public transportation. The Soviet Union has roughly 50 cars per 1000 people, most Western countries have 400 cars per 1000 people, (the US has 600/1000 people).

The panelized system, once the panacea for the ailing housing industry, has today become a significant part of the problem. However, serious impediments still exist to fundamental change. The implementation of the industrialized system required the construction of a huge factory infrastructure. This production system is virtually inflexible for any other type of building process. Supporting this industry requires tremendous financial and material resources and has siphoned resources from the development of other methods. The system, although acknowledged for its inadequacies, is still strongly supported by communist party hard-liners such as

Valentin Nazarov. Such people believe that there is no other way to provide high density living. Certainly Europe, Japan and the United States can provide examples of high density, low rise structures. Japan in particular is a good example of a population with low car ownership per capita, and extremely dense living conditions in 2 to 3 story structures.

The industrialized concrete panel system is not likely to change without funding for the development of alternate forms of housing. However while, the state allotted 64.3% of its total capital investment to housing, from 1918 to 1928, in 1980 only 13.4% of the budget was dedicated to the cause.¹⁷ Although the state government declared housing to be a top priority in 1961 with the XXII Party Congress, and again in 1985 with Gorbachev's proclamation, the decrease in the housing budget (figure 1) clearly indicates that proclamations from the government are not indications of subsequent actions.

Historical precedents play a telling role for viewing the present. In the last three years, Gorbachev's government has passed numerous laws to address radical restructuring, but their effect has been minimal.

Section 2.) Effect of Proposed Reforms

The advent of Perestroika has initiated a great number of new ideas regarding what restructuring should mean. In some instances, new laws have been passed, in others, the ideas are still on political drawing boards; still other ideas are mere talk amongst the disgruntled intelligentsia. As history has pointedly revealed, decrees from the state seldom are more than rhetoric. A prime case in point is the purely verbal support for the self-initiated builders.

The movement for restructuring is occurring both at the top through bureaucrats, and at the bottom through grass root citizen affiliations. In Leningrad this is evident through the recent democratic elections

¹⁷ Andrusz, pg. 20-21

which have put non-party members into power. These politicians are acting on behalf of their constituents' desires, not the state governments'. Although in Leningrad there are many innovative politicians who are pushing for change, there are also many party hard liners who, fearful of losing their power base, are pushing for slower change, and even curtailment or Perestroika. Some say Gorbachev has gone too far and that the reins need to be pulled in. It was very evident in Leningrad that the populace is becoming restless as stores provide fewer goods and the decay of their city continues unchecked.

According to Abel Aganbegyan, three laws make up the basis of this new economic movement: "the Law on State Enterprises and Conglomerates (in force since 1 January 1988); the Law on Cooperatives (in force since 1 July 1988); the Law on Individual Labor Activity (in force since 1 May 1987)"¹⁸ Mr Aganbegyan maintains that "The number of centrally planned tasks has decreased sharply as the new economic rules for enterprises have gained importance. The whole system of financing is being regularized. We have established new specialized banks whose purpose is to gauge the needs of enterprises and organizations and to serve those needs. We have begun a reorganization of the administration in order to simplify the administrative structure, abolish unnecessary branches, and reduce the central and republican apparatus by 30-50 percent."¹⁹ To innocent eyes, these initiatives sound revolutionary. However, establishing banks and having them operate effectively are two different things. Valerie Antonov, the deputy managing director of LENNIITAG in Leningrad, revealed that there is one central bank which does lend money to individuals to buy materials for building single family homes. However, the amount which can be borrowed is limited to less than half the cost of the building supplies. By the end of 1989, due to the shortage of rubles at the state level, 130,000 loan

¹⁸ Aganbegyan, Abel, Inside Perestroika. The Future of the Soviet Economy. Harper and Rowe Publishers 1989, pg. 2

¹⁹ Aganbegyan, pg. 3

applications could not be filled. Mr. Antonov continued that some commercial banks were currently being formed, however, because the laws were so new, they have very little capital to work with.

Another brash reform recently was heralded in the New York Times, *Moscow Acts to Give Tenants the Apartment They Live In*. The article states that the "City Council, opting for a utopian antidote to communism, has voted to take the city's entire apartment housing stock from the state's control and give it away free to millions of hard-suffering tenants."²⁰ This reform, if put into effect, would be a revolutionary move to creating private property. In general people we encountered in Leningrad would welcome this change, however people have become hesitant to believe anything. As Cline noted, "No one quite knows how or whether this can come true, but the council is advising the city to trust in the new powers of self-rule and await further details."²¹

As history reveals, the government is notorious for creating reforms which are not accompanied by a means of implementation. All of these reforms offer a top down solution and still retain state control, although in a different form. If the state government is sincere in its motives, a system which empowers the grass roots organizations needs to be created.

An analysis of the existing housing production system is incomplete without a historical overview. As depicted, history does repeat itself.

²⁰ Clines, Francis X. *Moscow Acts to Give Tenants the Apartment They Live In*, The New York Times, July 8, 1990, pg. 1

²¹ Clines, pg. 1

has the [highest] authority with respect to territorial planning...If the ministry wants to expand the plant, but the city has other plans for that land or does not wish to provide housing, transportation, and utilities in that vicinity for the additional workers...[then the Ministry is blocked].”²³

The centralized form of government keeps the power of the control at the top through management by decree. The lower branches of government such as the City Soviets and Raions (districts), must comply with and act in accordance to the higher jurisdiction of the Supreme Soviet. “Centralism provides a consistent national economic plan for the development of the local economy. The plan is approved by the Supreme Soviets. It stipulates the basic development policies of the local economy, and specifies the relations between higher government and the local management organs in the field of housing construction, local industry, health care, and other areas of economic and socio-cultural life.”²⁴

In order to understand how the system really works, it is important to understand the written text of how the system is suppose to work. Certainly many criticisms have been voiced regarding the inadequacies of a centralized system. Centralization creates a monopoly of control with no checks and balances. It breeds bureaucracies which “...develop parochial perspectives from information gathered from their own resources and processed through their own channels, and adopt strategies which promote their own self interest and guard against attempts to reduce the importance of their functions, or to decrease the resources allocated to them.”²⁵ Or as Michael Berezin, the Research Director at LENNIITAG put it, “the system is like a robot eating a bowl of cherries. Every movement is dictated by the computer program...you can’t kiss a woman like this!”

²³Savas, E.S., Kaiser, J.A., Moscow’s City Government (Praeger Publishers), pg 19

²⁴ Savas, Kaiser, pg. 21

²⁵ Morton, Henry W., *The Housing Game*, (The Wilson Quarterly, Autumn, 1985), pg. 62

CHAPTER II THE STATE ROLE IN HOUSING PRODUCTION

Section 1.) The Centralized Planning Process

"All power in the USSR belongs to the people...The people exercise governmental power through the Soviets [Councils] of People's Deputies which form the governmental foundation of the USSR...All other bodies are under the control of, and are accountable to, the Soviet of People's Deputies..."

The Constitution of the Soviet Union (Article 145)

In accordance with the statutes of the Constitution, there is a law entitled, 'Basic Rights and Obligations of the City and the Municipal Raion Councils of Workers' Deputies'. According to these laws, "...the district and the city soviets are the government organs in their territory, and, as such, they decide within the limits of their authority all local problems on behalf of the entire government and the working people of the city or Raion."²² The Raion (Administrative District or region) and the city soviets (executive and legislative bodies of the City Council) are responsible for implementing the policy of the party and the government (see figure 2, pg.). These organizations decide all policy relative to city or regional economic development, municipal services, and the coordination of all organizations concerned with housing and municipal construction.

The Soviet organizational system is termed as one of 'higher subordination'. It is a hierarchical system whereby there is always a higher authority which any given agency must report to. This structure is inherently difficult to work with efficiently. For example, "...an enterprise such as a steel mill is under the authority of a national-level Ministry of Ferrous Metallurgy, but the city soviet

²² Savas, E.S., Kaiser, J.A., Moscow's City Government, (Praeger Publishers) pg. 19

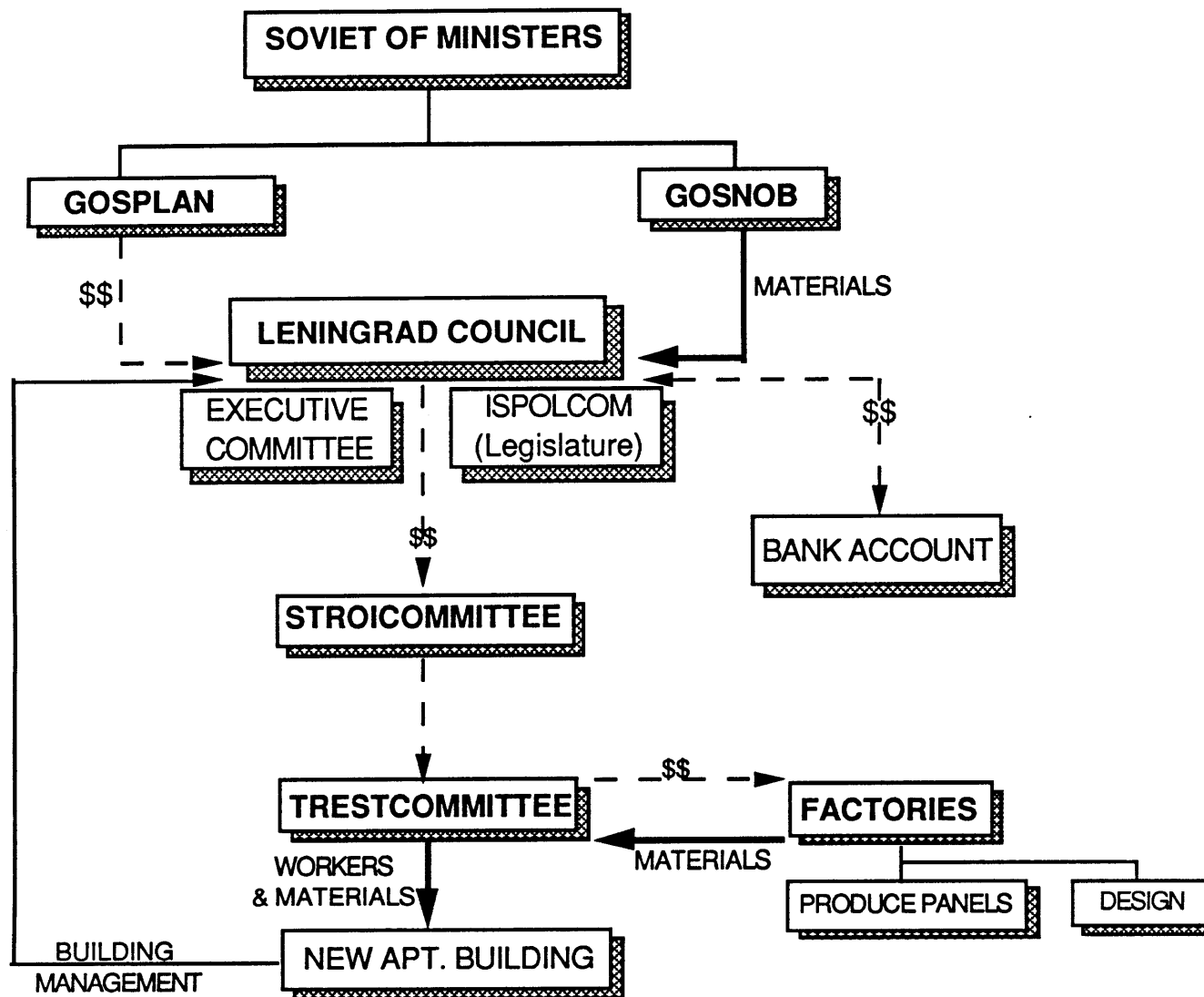
Long range planning is a critical part of a centralized system. One organization, GOSPLAN, is responsible for carrying out planning for the entire country. Such plans in the Soviet Union become law. Once they are created, they may be in place for 10, 20 or even 40 years. Plans are generally not adjusted for changing demographics, or changes in life style (ie. elderly people preferring to live alone rather than with family). "Planning is the official religion of the state. The plan is pervasive, all embracing and sacrosanct. It is cited as the ultimate authority and in effect, has the force of law. Whereas in the United States the chief virtue of planning, such as it is, is generally considered to be the process, in the Soviet Union it is the product that reigns supreme."²⁶

The obsession with planning has clouded the larger issue of implementation. The specific agencies which control planning and the ability to implement these plans are GOSPLAN and GOSNOB. The specific role these agencies play will become evident in the following description of the flow of money and materials.

²⁶ Savas, Kaiser, pg. xx

FLOW OF MONEY & MATERIALS

(figure 2)²⁷



²⁷ Linov, Vladimir, Chief Architect, LENNIITAG.Institute, Leningrad (June 6, and June 10, 1990)

Section 2.) The Allocation of Money and Materials

Figure 2 delineates the chain of decision making as well as the flow of money and materials.

GOSPLAN is the central planning agency in the Soviet Union. It is responsible for deciding all issues for the country from where a power plant should be built to how many pencils each agency should receive. Specific to this study, **GOSPLAN** determines the amount of housing each city or district will construct in a given year, and the amount of financial resources necessary to fulfill this plan.

For example, once **GOSPLAN** has decided that Leningrad is to receive X amount of rubles to build Y square meters of housing, the plans are then given to **GOSNOB** to determine the amount of building materials to be allocated to Leningrad. The plans for the housing must receive final approval from the Soviet of Ministers, before being passed to the Leningrad Council for implementation. **GOSNOB** is the central agency for controlling all material distribution. It also provides materials for military and industrial construction as well as housing. Housing has traditionally been the lowest priority due to the government's concern for a strong defense and dedication to large scale industrial production methods.

Section 3.) The Production Process In Leningrad

GOSPLAN and **GOSNOB** constitute the state level authorities which give directives regarding housing production and material supply. Implementation takes place at the local level through the **LENINGRAD CITY COUNCIL**.

The City Council (or City Soviet), is comprised of an executive and legislative body (or **Ispolcom**). The legislative body is elected through a voting process by the general populace. Until recently, the constituency in Leningrad was offered the 'choice' of voting for one candidate, usually a hard line Party member. In April 1990, multi-party elections were held, and many liberals (not closely aligned with the Party) were voted in. The executive committee has

traditionally been nominated from within the legislative body. In the past, the legislative body would 'rubber stamp' the proposal put forward by the executive committee. This system gave no power to the legislative body, and provided no checks and balances. However, Perestroika is affecting local politics to a minimum degree. In June 1990 the executive committee appointed Alexander Schehknoff, a man known for his liberal politics. An equally popular individual (Subcheck) will head up the legislative branch. These newly elected leaders have in the last month divorced themselves from the Communist Party. For the first time the city government in Leningrad will be governed by non-party members. The city will have a system of checks and balances, and elected leaders will be responsible to their constituents.

Within the Leningrad City Council there is a commissioner who is responsible for securing from GOSNOB the necessary building materials for the construction of apartment buildings. At this point several holes begin to appear in the process. The amount of money allocated by GOSPLAN may not correspond to the amount of materials necessary for proper construction. Or money may be given without regard to the availability of materials. When money is allocated, it is really nothing more than a number on a paper. No money is exchanged. As Vitrenko Leonidovich, Head of the Leningrad City Council Planning Commission noted, "...money doesn't really exist; you don't go to a shop to buy, but to be given goods." For example, it may be stipulated that 1 million rubles should purchase 1000 tons of concrete. However, material shortages may dictate that only 900 tons are given. Due to scarcity, the entire building process is controlled by material availability. Money, although readily obtainable from GOSPLAN, has virtually no significance in the material supply line.

At this point, according to Vitrenko Leonidovich, the commissioner has two choices. The first is termed 'Russian Economizing'. Methods for economizing include decreasing the amount of concrete utilized per panel or making the floor slabs thinner. This saves money and

materials in the short run, but reduces the life of the structure causing severe long term costs. The second option is known as *blatt*. It is a process of utilizing connections and delicate negotiations to secure the needed materials. Often these negotiations serve as a means for securing a flat for a factory worker, or family member. Although *blatt* would fall under the category of extortion in this country, in the Soviet Union *blatt* is a necessary and ubiquitous tool for conducting business. Michael Berezin²⁸, quoting a 19th century writer noted, "If people obeyed the laws of this country, it would be impossible to live here."

Once the financial and material resources have been obtained., the commissioner will sign a contract with the **STROICOMMITTEE**. This committee approximates a construction administrator and has the authority to make final approvals on all building designs. The **STROICOMMITTEE** then contracts the with **TRESTCOMMITTEE** for construction workers and the production of the concrete panels.

THE FACTORIES

The factories obtain the allotted materials, secured by the Commissioner of Housing at the Leningrad Council, from GOSNOB in order to produce the concrete panels. In Leningrad, there are four factories for construction. One factory produces industrial buildings. The other three specialize in apartment buildings of different heights, (4-10 stories, 10-12 stories, or 12-17 stories). Due to the out-dated equipment and the lack of developed skills amongst the employees, the factories are virtually incapable of diversifying their product. Periodic changes are made regarding size, but the material and basic attributes remain unchanged.

Factories are a very strong link in the building process, not only because they produce the concrete panels, but also because they have access to materials. The Soviet economy, due to a lack of price mechanisms, has created a system based on material procurement.

²⁸ Berezin, Michael, Research Director, LENNIITAG Institute, Leningrad

Thus access to materials provides a power base for obtaining other necessary items. This has induced a hoarding mentality amongst production based industries. Over the last few years, as material shortages have increased, the stockpiles of materials in factories has also increased. This has aggravated existing material shortages and created an artificial inflation. As materials become more scarce, they become more valuable on the black market. Factory workers have thus been extracting materials from the housing production line, and selling or bartering these materials for their own betterment. A multitude of state built apartment buildings currently sit idle in mid-construction because much of material needed to finish them has been sold out the factory back door!

THE MATERIALS

Of the 80% share of the housing built by state sponsored construction, 80% of the units are made from pre-cast concrete panels, with the remainder made from brick. The panels are made in a factory and trucked to the site where they are then hoisted into position by a crane. The panels are suspended from an inside concrete frame and serve as a curtain wall. The building's structure is carried on bearing walls located along the double loaded corridors, and in the party walls between units. Bearing walls are composed of reinforced concrete and are utilized on buildings up to 17 stories.

The panels themselves are composed of air-entrained concrete. The standard size is 600 cm (19'-8") in length, 24 cm (9.5") thick, and 120-150 cm (4'-5') in height. Air-entrained concrete has a porous nature which, according to Alexander Tovbeen, Chief Architect of LENPROJECT, gives this material an insulation value similar to wood. Due to the lack of availability of any other type of insulation, this is quite important. The inside face of the panel is finished by adhering wallpaper. One major disadvantage of the panel is that it's porous nature causes it to decompose quickly when exposed to moisture and extreme temperatures. Leningrad has a very moist climate with up to 18 rain days per month. The temperature swings annually from 12-80 degrees, Fahrenheit. When asked about the expected life span

of these panels, Alexander Tovbeen noted that deterioration generally begins after three years. This was quite evident in Leningrad where balconies are literally crumbling off building facades. It is also very difficult to repair or replace the panels. The building life is projected at 20 years. However, these panels are quickly produced, and the standardization of parts makes them quick and easy to assemble on site which decreases the number of workers exposed to the weather. This method of panelized construction does not require a high skill level to assemble. The decision to utilize the panels is made by bureaucrats from either the STROI- or TRESTCOMMITTEE.

The centralized system does not promote the exploration of alternative building techniques. However, 15 years ago pre-stressed concrete was tested, but the process was too complex for an unskilled work force, so it was eliminated. Poured in place concrete was also reviewed. Although this method was less expensive than the panel construction, it was vetoed by the builders (TREST- or STROICOMMITTEE). The builders prefer simplistic, yet costly methods of production so that they can meet their quotas faster, and with minimum effort. (Quotas are based on the amount of money spent, not the job done). Wood seems like a likely building material as well, due to the abundance of forests. However, wood because it is one of the few resources traded for hard currency, is cut for export only. Wood is only utilized sparingly in the USSR for window and door frames.

THE ARCHITECTS

Each factory has a group of architects responsible for preparing drawings as necessary. According to Alexander Tovbeen, "...every year minor changes are made to the design to reflect current technology". Every 5-7 years, a new 'series' is created which "modernizes the principal of the design". The production facility at the factory is responsible for deciding when a new series should be initiated. The main priority for each new series, as described by Mr. Tovbeen, is to 'provide a higher level of comfort' to the populace.

The process for the design of the series is similar to that in the United States: schematic design, design development, approval from the STROICOMMITTEE, working drawings, development of form work for construction, manufacture form work, analysis of technology for production, production of prototype, begin mass scale production. This process takes roughly ten years to complete. Once the assembly line is set-up, each building takes only 6 months from start to finish, if the materials are available. A design for a series may be used an unlimited number of times. Although there are many factories in the USSR producing different designs, it should be noted that the buildings vary only superficially. The basic building form remains virtually unchanged across the country. In driving through the suburbs of Leningrad, one is visually accosted by the sight of building after shapeless building sitting awkwardly on the land. There is no local context or individual building definition. There is no scale or sense of place, or even an identifiable entry. One inhabitant of an apartment building revealed that mothers often tie colored ribbons to their doors so that children will be able to find their way back home.

Through our research, it was apparent that many architects in Leningrad are capable of designing quality buildings and environments. The problem with trying to get quality designs built is that everything must be approved by the STROICOMMITTEE. The STROICOMMITTEE is basically composed of bureaucrats with little to no knowledge of architecture, engineering, or construction. In general committees such as this are composed of party members, or relatives of party members. Michael Berezin, the Director of Research at LENNIITAG, cited the following tale of working with the STROICOMMITTEE. LENPROJECT (a design institute) proposed a master plan for the location of 25-30 units of housing. This plan was submitted to the Chief Engineer of the STROICOMMITTEE for approval. The engineer said that the dispersal of the buildings throughout the site would be too difficult to build. Instead he proposed grouping all the units in a large polygon formation.

Solutions such as this lack all sensitivity to the landscape and the users.

The production process for housing has traditionally been controlled by bureaucrats. Each of these bureaucrats is judged according to how well they fulfill their annual quotas in their departments. According to Michael Berezin, "departments don't see reality, they just do their narrowly defined jobs." For example, the factories must produce so many concrete panels. The industrialized system allows them to meet their quota more easily. It is irrelevant that the panels begin to corrode in three years. The lack of accountability created by the quota system has caused a piecemeal approach to producing housing. The vision and synchronization of the process has been lost. This is the root of the problem of the system.

The production process involves the Leningrad City Council, and the factories. The actual construction of the buildings on site involves construction workers to pour foundations and erect the panels, and building inspectors to give the final sign-off.

Section 4.) The Construction Process

The Foundations

Leningrad is known as the Venice of the East. There are numerous canals in the old city, and there is a very high water table throughout the region. Most of the city has been constructed on land fill. Given these soil conditions, concrete structures are far from ideal due to their immense weight. In order to support them, it is necessary to sink deep foundations which are very expensive. For the foundations, it is sometimes necessary to dig 30 meters (90 feet) to find soils which will bear the weight. Generally reinforced concrete piles are utilized. According to Vladimer Linov, the Chief Architect at LENNIITAG, the technology for caissons does exist but, because caissons are cheaper, the builders have opted not to use them (the cheaper process would take longer for them to fulfill their quotas).! Linov also noted that the piles are utilized for buildings which are anywhere from 2 to 17 stories high. In the United States, this type

of deep foundation is avoided for low rise structures due to the prohibitive cost.

BUILDING STANDARDS AND REGULATIONS

Building regulations and standards are clearly spelled out in a book which is kept in libraries. The standards are the same for the entire country. According to Alexander Tovbeen, it is desirable to have "...the same level of comfort for all.". For example, the space allotted for one, two and three room flats as well as specific room lay-outs is all standardized. Utilities such as heating, hot water, and fire protection are also standardized.

Although the written building regulations are very stringent, more stringent than in the U.S. in fact, the application of the standards is quite different. This became evident one day as we walked through a series of kitchen-garden lots. The lots were 600 square meters. Every lot had a small house built on it as was permitted. When asked how sewage would be handled, we were told that each lot would have it's own septic tank, or out-house. I noted that the lots were very small, and that the water table was quite high (difficult for percolation). We were told that the written standards did not allow for this type of sewage system, but that the people had no access to any other type of system, so the inspector would have to permit it. In contrast, both of the Finnish and Swedish contractor who are involved in renovation projects in Leningrad, commented that the building inspectors went through their buildings with fine tooth combs. Tommie Erikson of SIAB noted that several times they had to invite an inspector to Sweden to demonstrate SIAB's high work standards in order to get a sign off on a drawing. Apparently officials are well aware that if they sit on the drawings long enough, they will get a trip outside the Soviet Union. This process unfortunately has fed upon itself. Inspectors seem to enforce the standards for their own benefit, not for the protection of the people.

THE LABOR FORCE

The communist doctrine, in its safe guard against inequality, has not provided adequately for worker incentives. Workers at all levels and in all professions are reported to lack dedication to their jobs and a sense of pride in their work. A director of one of the newest institutes in Leningrad bragged that of his employees, 30% were competent, efficient workers. He said that on average, only 5% of the work force could be considered responsible and diligent. Apparently, workers are not highly motivated by money. In talking to a Finish contractor in the process of completing work in Leningrad, he revealed that his company had a great deal of trouble working with Russian construction laborers. Even with double pay and other benefits the workers showed up late and lacked initiative. It is hard to spend money because of the lack of material goods in the stores; this may explain the workers attitude.

A large majority of the construction workers in Leningrad come from the out-lying rural areas. Due to the shortage of workers, these people are quickly hired for construction work, but they must wait ten years for housing. In the interim, they are housed in dormitories. The job of a construction worker is not highly sought after. For nine months out of the year, the climate is not conducive to working outside, with only four hours of daylight in the winter, and temperatures hovering around zero degrees Celsius. Equipment is generally in short supply. There are large cranes for lifting the panels into place, but there are virtually no electric hand tools. This forces the laborers to cut holes in concrete slabs with hammers and chisels. In addition, workers are not compensated for the harsh working conditions. They earn the average wage of 250 rubles per month. (At the exchange rate of .6 rubles to a dollar, this equals \$150 U.S.).

Section 5.) Building Management

Within the Leningrad City Council there are two departments associated with building management. The first is the Housing Board which is responsible for everyday building maintenance. The second

is the Renovation committee which does major reconstruction on buildings as needed.

In our visit to various homes, it was immediately obvious that there is a general lack of attention to building maintenance. More than a few entrance-ways had overhangs that seemed loosely attached to the building. Stoops seem to consist of flimsy wooden crates which sit on top of the ground and move with the foot traffic. They often have holes punched in them from wear. Stair-wells are not kept clean or well lit. Boris Nikolilaschenko, the Deputy Chief of GENPLAN in Leningrad stated that "...the resident is alienated from the owner (City Council) and no one takes responsibility for building maintenance. The owner doesn't depend on the maintenance of his housing for prosperity." Formally, the housing board is responsible for maintenance, however they are not held accountable for any of this work. Mr. Nikolilaschenko noted that the basic system for determining which buildings need repair is based on the age of the building rather than the actual condition of the structure. This system is highly inefficient due to the fact that most of the older buildings, those built before the advent of the panelized method in 1930, were built better than the newer buildings. As mentioned previously, the concrete panel systems begin to degenerate after three years, and the buildings life span is only 20 years.

The Renovation Committee is primarily responsible for the historic structures located in the the old town of Leningrad. These buildings date from 1427 to 1917 and encompass such styles as Early Russian, Moscow Baroque, Petrine Baroque (influenced by Peter the Great), Gothic, Russian Classical, and Eclectic. These buildings are graced with an opulence of ornamentation characteristic of their period. Certainly these structures are a rich part of Russian heritage, even though they recall the era of wealth and prosperity of White Russia. The majority of the structures are made of brick which has been covered with a stucco finish then painted. The color of the buildings today reveal the era in which they were constructed. A visitor sight-seeing in Leningrad is struck by the rich ochres, teals, greens and

reds of the building facades. Stucco is a difficult building material to use in moist climates, it requires annual repainting, which must occupy a large portion of the maintenance crews. For the most part, the buildings in the center of town, which are seen by foreign visitors, are kept in reasonable shape on the exterior. However, it was rather surprising to see that the interior spaces have hardly changed since the 1900's. This is particularly evident in the electrical and plumbing systems which are quite primitive and bordering on dangerous.

The renovation process, as described to us by Boris Nikolilaschenko, consists of tearing down all horizontal elements (roofs, floors, and ceilings), while leaving all the vertical members standing. Unfortunately, bracing is often not used properly during demolition which causes the walls to fall down. An example was given of Pushkin's House which was recently renovated. Pushkin, "...revered in the Soviet Union as both a great writer and the liberator of the Russian literary language..."²⁹, lived in Leningrad in a small house which has become a museum and a site of significance and pride for the people of Leningrad. As the demolition crew removed the roof and then the floor, the walls began to fall down as well. Fortunately, the facade was saved, but the rest of the building was rebuilt of pre-cast concrete. Today, 3 to 4 years after the renovation, the structure is in critical condition.

The renovation committee's effectiveness, like the builders, is based on a quota of how much money they have spent; the more money spent, the better they are fulfilling their job. This has allowed buildings which require more costly work to be renovated before buildings which are in the most need. Often complaints from high ranking citizens will cause their building to be put at the top of the list.

²⁹ Mawdsley, Evan and Margaret, Blue Guide: Moscow and Leningrad. (Ernest Benn Limited, 1980), pg. 23

In Leningrad, it is evident that the building owner has no vested interest in building maintenance. In a market based system, landlords will normally maintain their buildings to protect the properties value. In the Soviet Union, the lack of price mechanisms for valuing goods such as buildings, has caused a general lack of concern for upkeep. Corruption within the building management agency has allowed funds to be siphoned into other areas. Buildings are in serious need of repair, and the cost of this repair will now cost more than new construction. The extreme need for extensive building maintenance, coupled with the inefficient practices of the renovation committee has detracted funds away from new housing production. This problem will become more severe over the next few years as more buildings fall into serious disrepair.

Section 6) Summary of the State System

In summary, the concrete panel system has been the dominant form of construction during the communist era. The reasons can be recapitulated as follows:

- The speed of production of the panel and the subsequent erection of buildings.
- The ability to standardize both the panels and the housing units; this proliferated "equality in poverty".
- The manufacturing of the panels required few workers, with little or no skills.
- The ability to exclusively use cement, the most readily available material.

The centralized control of housing production which manifested the concrete panel system did meet the political needs of the state until about 1960. At that time its shortfalls began to be evidenced, yet production continues today virtually unaltered. The production system has become one of the major obstacles to meeting the housing demand. The system was built on the premise of producing housing

quickly, but it has forgone quality issues. This has created buildings which begin to decompose within three years, with a maximum life span of twenty years. The inherent nature of the panel system makes it virtually impossible to repair. The lack of general maintenance to the buildings has accelerated the deterioration process. Thus, Leningrad is faced with a city of buildings that will cost more to repair, than to build anew.

It is apparent that the existing state sponsored system will not be the cure for the housing problem. Where are the glimmers of hope? The following chapter will present alternative opportunities for meeting the housing shortages.

CHAPTER III ALTERNATIVE CONSTRUCTION TYPES

Michael Gorbachev's decree calls for the 'private' industry to produce roughly 10 million housing units by the year 2000. Exactly what the private industry is, or how they will mobilize their resources is not defined. However, there exists in the Soviet Union three types of builders who operate outside of the state directed system. They are the co-operatives, the self-initiated builders, and the foreign contractors. In general, these three types of builders currently do little to alleviate the housing problem. However, these burgeoning industries may play a key role in the future in meeting the consumers demand for adequate space, and higher living standards. A brief look at how they are currently structured will allow for an evaluation of how they might be expanded in the future.

Section 1.) Co-operatives

The word co-operative is commonly applied to two different kinds of entities. There is the co-operative form of tenure in which a group of people organize together and 'buy' their own apartments from the state. This is very similar to cooperative living in the United States. 'Co-operative' also applies to a recent phenomena in the Soviet Union which approximates private enterprise. To avoid sounding too much like a capitalistic entity, the word co-operative has been chosen. Lenin, who tried co-operatives in the 1920's, said that [Socialism is a] "society of civilized cooperators."³⁰ The following is concerned with the co-operative as a business entity.

As part of the restructuring of management under Perestroika, there was the recognition that individuals and enterprises must be brought into the process. "What lies at the root of the new system of administration is the offer of economic independence to the various enterprises and conglomerates which make up our national economy...A large co-operative sector is to exist alongside the state

³⁰ Smith, Hedrick, *Inside Gorbachev's USSR*, (documentary produced by WGBH, Boston)

enterprises. We have already seen a leap in personal productivity, which in due course will spread to every aspect of the economy.”³¹ A law establishing co-operatives has been in effect since July 1988. Basically this law allows co-operatives to operate as private enterprises, yet the lack of material and financial resources to support co-operatives has greatly hindered their growth.

Today some 200,000 co-operatives exist.³² In 1988 co-operatives earned 4 billion rubles in production and services, and employed 2 million people.³³ Most co-operatives are formed by individuals with an entrepreneurial spirit. According to Richard Kirkland of Fortune Magazine, “Two things unite the managers who run these enterprises: their lack of faith in what Gorbachev has called ‘a regulated market economy’ and their ardent desire to escape the iron grip of the state by winning the right to own private companies.”³⁴ Andrei Fyodorov, an owner of a first class Moscow restaurant was quoted as saying, “Some 80% of our so-called co-operatives are pure private business. These people pay their workers well, but they don’t ask the workers how they should divide the profits. They’re owners. *I’m* an owner”³⁵ These people may consider themselves owners, but the truth is that at any time they could be shut down by the government. Although they may operate their businesses under free enterprise principles, they are still an island in the midst of communism. Every ashtray, morsel of food, or part for a factory must be secured through either bureaucratic channels or the black market. The government still has tight reins on these race horses for a market economy. A look at how these enterprises are actually operating is revealing.

Kirkland ‘s article tells of Mikhail Bocharov, the head of a brick and lumber plant outside Moscow. Bocharov was one of the first to

³¹ Aganbegyan, pg. 2

³² Kirkland, Richard I. Jr., *Can Capitalism Save Perestroika*, Fortune July 30, 1990, pg. 138

³³ Aganbegyan, pg. 2

³⁴ Kirkland, pg. 138

³⁵ Kirkland, pg. 138

persuade the government to 'lease' a factory to a group of workers. The workers all put in a small sum, and the government loaned the remainder. Mr. Bocharov took this opportunity to create a retail outlet for the sale of bricks and lumber to be sold to individual builders. "Sales jumped 50% from 1987-1989, and the plant went from requiring an annual state subsidy of 150,000 rubles to earning a small profit."³⁶ According to Mr. Bacharov, "Allowing private ownership is the only way to motivate people to work. It must be the number one issue of any serious reform."

In January 1990, Bacharov formed a holding company, BUTEK, that in essence permits an enterprise which buys its assets from the state to become a 'private company'. "The managers can make any deal they like with foreign or domestic partners and no longer have to take orders from their former masters in the Moscow ministries."³⁷ Of course Bacharov's recent appointment to the Supreme Soviet has greatly facilitated this venture.

Another example of a co-operative enterprise is that of Mark Masarsky as depicted in Hedrick Smith's documentary, *Inside Gorbachev's USSR*. Masarsky borrowed 1 million rubles from the state to buy a run down brick factory on the outskirts of Novgorod, near Leningrad. The factory was formerly a prison where 350 prisoners worked to produce 12 million bricks in one year. Masarsky, with 90 workers and new equipment, has doubled production. Currently there are 800 workers employed by Mr. Masarsky to build roads, erect houses or make bricks. Each worker has a share in the business. Masarsky, in the spirit of 'co-operation', allots himself a salary which is only two and a half times the pay of a worker. On average, workers receive 1000 rubles a month, roughly four times the national average.

³⁶ Kirkland, pg. 138

³⁷ Kirkland, pg. 141, as quoted by Mikhail Bacharov

Masarsky's original intent was to build quality houses out of brick and wood. However he has been stymied by the lack of wood. According to Masarsky, "All the lumber in Novgorod is under the thumb of this one man. Aleksander Bochan, the state supervisor of timber."³⁸ At one time Masarsky leased a lumber mill from Bochan, but the state demanded all the output, and left no lumber for his house building enterprise. When asked why he could not give more lumber to Masarsky, Buchan replied, "They will fire me if I do not fulfill the state plan. I have no other way except for doing what I am told to do. In order to give him lumber, I would have to produce more, but I do not have either human or technological resources."³⁹ When Masarsky leased the mill, he had 100 workers gainfully employed here. But since Buchan stepped in, production has virtually stopped. Masarsky commented that "The state is a monopolist, not capable of taking advantage of its wealth because nobody wants to work for it. We have workers. Combining [Buchan's] resources and my skills, we could have a treasure here."⁴⁰

In the meantime, Masarsky has been building pre-fab homes, but "...at the state's orders, the state's fixed prices, and using inferior materials supplied by the state."⁴¹ A tour of these homes reveals the effect of using poor materials. The walls are uneven and had to be finished by the tenants with newspaper to make them smooth. Most of the finishing work was never done due to lack of materials. The occupant of the house is quite unhappy with the results, as is Mark Masarsky. The occupant noted that, "The state is happy all right. They decided that before the year 2000, each of their workers gets [a place to live]. But the state doesn't care whether the families are happy or not. They made a check; filled a square."⁴²

³⁸ Smith, pg. 5

³⁹ Smith, pg. 5

⁴⁰ Smith, pg. 5

⁴¹ Smith, pg. 5

⁴² Smith, pg. 5

As is evident by Mark Masarsky's experience, there exist many talented, ambitious individuals who are willing to work hard and achieve results. The state has held a carrot in front of these people, but the reality is that there is nothing behind the carrot. Some entrepreneurs have been soured by this experience and don't believe that the government will ever loosen its grip on the economy. Others are garnering their success with trepidation: successful enterprises are more likely to be shut down by zealous bureaucrats.

Section 2.) Self-initiated Home Builders

The individual house builder has always existed in the the Soviet Union, although support from both the state and local government has steadily decreased over time. The historical record outlined in chapter I indicates a pattern of behavior: the government continually promises decrees which appear to be for the benefit of the people. Yet there is no means for either enforcing the decree, or for implementation. Today, only one million⁴³ single family homes exist, most are in rural areas and in varying degrees of decay. However, it is clear that individual construction has played a significant role in the past, and if supported by resources and financing, could contribute significantly in the future.

KITCHEN GARDEN PLOTS

Today, the only form of individual construction occurring in any quantity is for the provision of a second home. According to Valentin Nazarov, Director of GENPLAN in Leningrad, "the tradition of a second home is a very deep rooted Russian tradition". Most of these second homes are built on kitchen-garden plots. The government instituted kitchen garden plots just after World War II to alleviate food shortages. Prior to 1960 only state officials were permitted access to garden plots. Currently there are 300,000 garden plots in the suburbs of Leningrad. This number is expected to grow to 500,000 in the near future. Mr. Nazarov also noted that 'gardening is a deep

⁴³ Nazarov, Valentin, Director of LENNIITAG, (June 15, 1990)

rooted tradition due to the number of rural dwellers who have been transplanted to the city. Owning a garden plot allows these people to revert back to their days of farming.' In reality, the limited supply of quality fruits and vegetables, coupled with cramped living conditions is probably the driving force for most. In any case, the provision of land for gardening has caused the advent of individual home builders for second homes.

The right to a kitchen garden is often acquired through the work place.. Companies (factories), will procure a tract of land from the Leningrad Council. Committee members from within the company are elected to organize a *co-op*, and subdivide the land into 'plots'. In general, garden plots are 600 square meters, (1,968 square feet). Over the years different rules have existed regarding what is permissible to build on these lots. Outside of Leningrad, we visited a new *dacha* (Russian term for second home), under construction. These *dachas* were permitted a floor plate of 50 sq. meters, but there is no limit on height. Although these standards exist today, they are constantly changing and rarely enforced. These buildings are somewhat crude in construction, but they are utilized for weekend accommodations all year round.

In general, the *co-ops* organize the construction of roads. The state provides electricity to the site. Access to water is generally done through private wells, or there may be a fresh water hook-up provided. Sanitation is the biggest problem. Each unit is expected to install its own out-house or septic tank. It should be noted that the water table throughout the region around Leningrad is very high, within one to three feet. Also, the lot size of 600 sq. meters is limited, forcing houses to be located right next to each other. These are not optimal conditions for individual waste disposal.

On our visit to a *co-op* site, we were impressed with the image portrayed of 'homesteading', something akin to how our ancestors settled land 100 years ago. The land has been roughly cleared with crude tools. Dirt roads and plots have been laid out. Materials are

hauled to the site by private cars or borrowed trucks. Every member of the family is busy contributing to some aspect of the process. In general the dachas are constructed of wood with concrete block perimeter foundations. Construction techniques are fairly primitive, but in viewing an area which had been constructed several years ago, the end result is quite charming; a series of over grown doll houses with neatly tended gardens.

Section 3.) The Role of Foreign Contractors

Foreign contractors engaged in work in the USSR offer a form of short term assistance for the Soviets during a transition away from the industrialized process. Currently there are about 15 foreign contractors doing work in the Soviet Union. The majority of these firms are Finnish, Swedish, or Italian. They operate either on a fee basis, or they form joint ventures with Soviet agencies. These contractors are attracted by the tremendous opportunity in the Soviet Union. To give an example, proposed projects are often pre-leased so quickly that construction financing seldom has to be secured. In general these firms are constructing either office or hotel space for Westerners who will pay in hard currency, until the ruble is convertible with other currencies. This is the only way the contractors can extract their profits.

Currently in Leningrad, there are two foreign contractors engaged in work. YIT, which is the largest construction company in Finland and has operated in the USSR for 30 years, and SIAB, which is a Swedish construction firm engaged in their first Russian venture. Both companies are renovating historic hotels to be used by INTOURIST, Russia's national tourist agency, for western guests. A visit to both construction sites is like visiting an island of high technology. These companies employ highly skilled workers from East Germany and Scandinavia. They have the latest in electrical tools and trucks. The sites are extremely orderly with strict safety precautions evident. All tools, trucks, and equipment, plus 99% of the materials are brought by truck from Sweden and Finland. The only materials bought from the Soviets were sand, gravel, cement

and reinforcing steel. According to Tommie Erikson, the assistant site manager for the SIAB project, his company would have preferred not to buy any materials from the Soviets, but it was stipulated in their contract. Erikson's reasoning is that the Soviets are often late in bringing materials to the site; sometimes threats are the only way to get results.

YIT has been engaged in renovating the Astoria Hotel for 39 months. When they began, they hired several Russian workers as a sign of good will. According to project manager Jukka Suominen, it is difficult to find Russian workers with skills. "They don't know the language [English or Finnish], and they are lazy". YIT pays their Russian workers close to double the national average wage. Workers also receive assorted benefits such as access to goods from Scandinavia. The doubling of salary, although a carrot in market based economies, holds virtually no significance in the Soviet Union since there are so few goods to purchase. However, Suominen continues, "Russian workers, if treated fairly and paid well, are very loyal. But Soviets are not used to trusting."

Most of the foreign companies doing business in the Soviet Union are benefitting themselves, and a few Soviet bureaucrats. The people in general do not share in any of the profit or rewards. If anything, these five star hotels for Western dollars only, are likely to bring resentment. The wealth of knowledge and resources which the contractors have access to is slipping between the cracks. Soviet agencies should look at how the foreign contractors can help alleviate their construction industry woes. Foreign contractors can offer a short term gain to the Soviets. By training workers, the Soviets can re-introduce traditional construction methods, and begin to build high quality buildings.

Section 4.) Access to Building Materials

The securing of building materials is one of the most difficult tasks for independent builders and co-operatives, it is also the key to their livelihood. The following sources are the most common:

- 1) **STATE RETAIL STORES** - The state has set up retail stores for selling building materials, but these stores currently have no stock. Theoretically, these shops have been set up to sell houses as kits to be assembled on site.
- 2) **FACTORIES** - State owned enterprises are allowed to sell materials to workers. These supplies are either produced at the factory, or are materials which the factory buys from GOSNOB which are in "excess". Factories will also sell materials 'out the back door', a contributor to the black market
- 3) **RIGHT TO ACCESS** - Materials may be 'lifted' from the factory by workers. Under communism, "everything belongs to the people". People take advantage of this doctrine and take the materials home to be utilized for their own house.
- 4) **IMPORTED SUPPLIES** - Co-operatives or individuals may buy goods in hard currency from foreign contractors currently operating within the Soviet Union. Or they may have the goods imported. This is very costly and few people have access to hard currency.
- 5) **BLACK MARKET** - There exists a secondary market throughout the Soviet Union. Through connections and back alley deal making, virtually anything can be bought on the black market, for a price.

Section 5.) Summary

The use of alternative builders has, in the past contributed to the housing supply both in adding to the stock, and in allowing the workers to take initiative for improving their living conditions. Co-operatives and self initiated builders could play a large role in the supply of housing, but they must be empowered. Materials, financial resources for loans, quality land parcels, and access to tools and new technology must be readily accessible. Foreign contractors can be an aid during this transition by supplying materials, tools, and technical training for workers through on-site experience. If Gorbachev is serious about utilizing 'private' means for housing construction, muscle has to be put behind these words.

CHAPTER IV LESSONS LEARNED/ A LOOK TO THE FUTURE

The historical perspective has revealed the strong influence of the Bauhaus movement. While this era originally epitomized architects acting as the cultural benefactors for the users, the communist regime has captured this notion and clung to it for decades. This has not allowed for any maturation of the movement, as occurred in Europe and the United States. The strong influence of this movement has allowed party liners to promote one notion which has not changed for 50 years. This is evident in Valentin Nazarov's myopic vision that only high rise concrete panel apartment buildings can cure the country's woes.

The industrialized panel system did meet the country's post war political objectives to utilize a work force of unskilled laborers, and to build homes with the most available resource, concrete. The system allowed for a standardization to take place for the whole country. The industrialized method allowed for a socially correct 'sameness' to prevail in the countryside. The political ideology of communism, 'equality for all' dictated a building form which did meet political needs until 1960. During the 60's, the flaws with the industrialized method began to appear. However, the process continues today virtually unchanged.

The power of the centralized government to monopolize every industry has had a crippling effect on the entire economy. The government's attempt to plan details down to how many pencils a company is to receive has not empowered the government, but rather allowed it to rule a disintegrating society. In particular, the government's fear of foreign invasion, caused the directing of resources to meet military goals, leaving housing and the domestic economy to virtually stagnant for 50 years.

In Leningrad it was evident that the control of the bureaucratic powers has caused numerous inefficiencies within the system. Blind

decisions, such as utilizing a porous panel for the exterior of a building is but one example. The short life span of these panels, (20 years), coupled with the difficulty of repairing them, has actually done more to create a housing shortage than to alleviate it. This will become more evident in the next ten years as these buildings reach their life span prognosis. The simplicity of the industrialized process does have appealing virtues. However, the marriage to this one system has caused worker skills to deteriorate, and a lack of awareness of new technology. The industrialized system has dedicated tremendous resources to constructing factories which will be difficult to utilize for anything else.

The built environment in Leningrad, as created over the last 50 years, has become the physical embodiment of the centralized structure. There is virtually no variation in building appearance. Architecture does not define building design, but rather a mechanized, repetitive form. Children can't even find their way back home without the aid of colored ribbons. People have become alienated from their habitats. This has created a lack of pride in dwellings, and a lack of care in the maintenance of the structures which has further contributed to their deterioration.

The lack of incentive amongst the labor pool to do an effective job is also a result of the centralized system. The lack of basic tools and equipment creates ridiculous tasks such as chiseling holes in concrete in zero degree weather.

The bureaucratic system has allowed corruption to fester. From building inspectors to material suppliers, people with power have used it to protect themselves from the unknowns of the system. Lack of pricing mechanisms has also allowed for inefficiencies. This has resulted in methods of production which are the most costly, rather than the best solution. This is particularly evident in the case of the builders who operate from a quota basis rather than a cost accounting basis.

In summary, field work in Leningrad revealed four paramount problems within the existing state sponsored system:

- The state sponsored industrialized process for producing housing is highly inefficient and incapable of solving the housing problem in Leningrad.
- The monopoly of control over material distribution by GOSNOB has caused extreme material shortages.
- The labor force in general lacks adequate skills and is unmotivated.
- The infrastructure throughout the city of Leningrad has been steadily deteriorating since the advent of Perestroika.
- Recent state level reforms which call for top down changes, have caused more confusion, than solutions.

The system is structurally flawed. But there are glimmers of hope. The past success of self-initiated builders in significantly contributing to the stock of housing, as well as the entrepreneurial spirit of the co-operatives is indicative of what can be done if people are given the opportunity. The construction of the dachas on kitchen/garden plots reveals the resourcefulness and the desire amongst the people to better their situation. If the role of co-operatives and individual home builders is expanded, and outside resources such as the technology and skills provided by foreign contractors are utilized, it is feasible that future housing will meet consumer needs.

Specifically, to overcome the existing situation in Leningrad, change must occur at both the state level and the local level. Changes at the state level involve restructuring the management of the economy, the implementation of price mechanisms, and the convertibility of the ruble, to name a few. Changes at the state level are highly

complex and outside the realms of this research. However, specific changes at the local level should address the following:

- **THE CENTRALIZED SYSTEM**-The system for planning and constructing housing must be realigned. A multiplicity of house producing enterprises must be developed at the local level.
- **BUILDING MATERIALS**-Alternative materials to concrete must be developed. New infrastructure for processing materials must be created through the use of enterprises and co-operatives. In particular, indigenous materials such as wood should be exploited.
- **LABOR**-A means for training and educating the labor force must be implemented. Utilizing foreign technology will be very helpful. Wages must be based on expertise and worker efficiency.
- **ACCESS TO CAPITAL**-On the demand side, a mortgage system is required to utilize private funds to purchase homes. On the supply side, a banking system is a prerequisite for the provision of loans to facilitate the formation of building co-operatives and enterprises.

The top-down reforms which have been passed under Perestroika have had little to no effect on the people of Leningrad. In fact, over the last five years their standards of living have been declining. There is less food in the shops, the roads are filled with holes, and their housing is literally crumbling. These people have become restless. Grass-roots movements are beginning to form. Evidence of this is present at the Leningrad City Council. The recent free elections by the populace has put into place individuals who will not bow down to the state government decrees.

Change such as what is happening in the Leningrad City Council are what must occur if the government is truly to change historical precedents and implement beneficial reforms. The difficulty lies in

trying to peacefully implement top-down and bottom-up reform simultaneously. As other members of the Warsaw Pact have amply demonstrated over the last year, revolutionary change is more expedient when the government is overthrown.

For the immediate future, the next ten years look to be a time of tumultuous change for the Soviet Union. The advent of Perestroika may have long term gains, but in the short term, as Marshall Goldman noted, 'the society is disintegrating.'⁴⁴ The pull of the parties to one extreme or the other has caused tremendous imbalance. Gorbachev sits at the Center of the stage in a most precarious position. He must appease the old party liners who want to maintain their power base, and appeal to the millions of workers who are demanding a better way of life.

Will Gorbachev be able to provide a home for every family by the year 2000? Will the housing situation in Leningrad improve? Chances are history will repeat itself. The Soviet Union is poised right now in one of the most delicate stations in it's history. The progress made to date by conscientious politicians and motivated individuals has taken more courage than we as Westerners can begin to understand. The challenged faced is far more difficult than starting from a war torn country as Europe did. The world is watching the evolution of Perestroika and the hopeful birth of a democratic state. Hopefully adequate shelter will be a keystone to this new society.

⁴⁴ Goldman, Marshall, Associate Director of the Russian Research Center, Harvard University

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