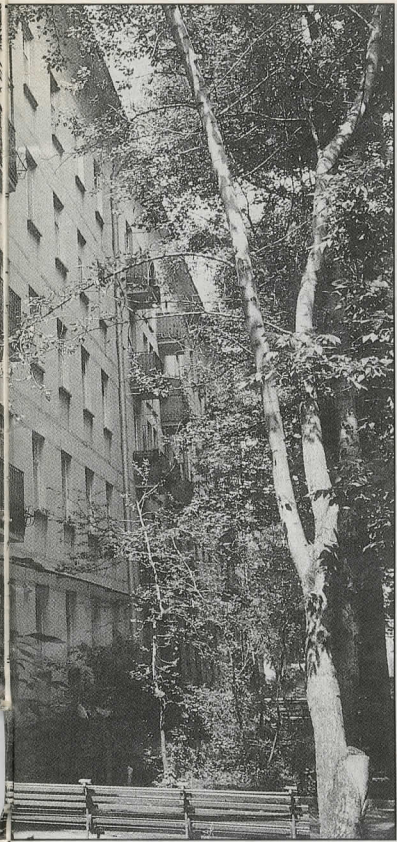
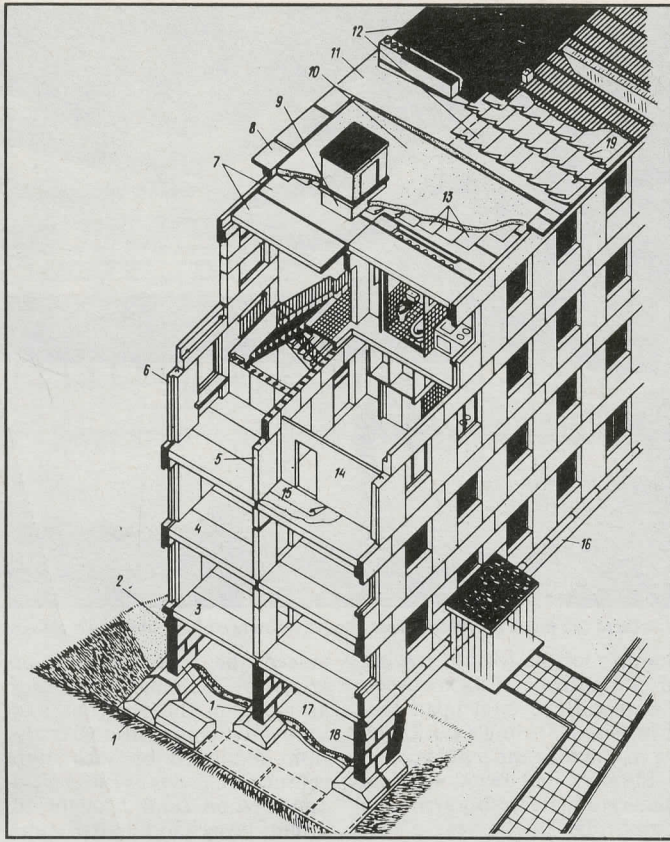


Roofing



concrete panelled construction in Moscow.



Axonometric from a textbook of first-generation housing blocks.



Moscow: fifties brick and sheet (foreground) with second-generation concrete panel in the background.

less is MORE

Sarna's Sarnafil single ply roofing membrane gives protection to match – and beat – the best of the conventional three layer and high performance systems available today.

Guaranteed for ten years, Sarnafil is the high technology, high performance roof of tomorrow. On the Continent Sarna can already point to 25 year old installations which are still perfectly weathertight – in conditions far more severe than those encountered in the UK.

Sarnafil consists of a reinforced Polymer membrane which is resistant to water, weather, UV degradation and chemical attack. Joints are thermally fused using specially developed welding machinery and all installations are carried out by trained technicians. Installation is troublefree, clean, easy and fast. And that all means lower installation costs. So we can justly say Sarnafil gives you more – for less.

**The most complicated
detailing can be
formed on site and
Sarnafil's real flexibility
means that it can be
used where
conventional products
would fail or be totally
impractical.**

*But
God is
in the
details*

Mies Van der Rohe

blocks, the earlier ones suffer from poor detailing, poor installation and poor product design. One of the familiar reasons is that of quality control. Another is the overriding emphasis on quantity, often at the expense of quality. This almost reached the status of decision-making policy in the necessary but pragmatic drive after the Second World War to meet the appalling shortage and overcrowding in housing, which was not only the result of extensive war destruction but of the increased migration of rural workers into already densely populated industrial centres.

It is impossible to separate roofing from all the other problems besetting the Soviet construction industry, such as how to simultaneously improve productivity and quality. The recognition that the problems are not just questions of a technical nature, but have their sources in more general social, political and town planning contradictions, while clearly important for their long-term resolution, do not solve the immediate problems of water penetration.

Accordingly the professional and trade press in the Soviet Union – journals such as *Housing Construction*, *Architecture and Construction of Moscow*, and *Architecture USSR* – have over the last three years frequently featured articles concerning the infamous five-storey Krushchev blocks. While the debate continues and conservative statistics say that 31 per cent of the inhabitants of these blocks consider their living conditions to be poor, the argument for their rehabilitation seems to have been temporarily won, at least in the sense that some of the schemes are on site. The debate continues though, especially around the precise definition of, and the boundaries between reconstruction, modernisation and new construction. A major question is at which point the repair and maintenance of what in many cases were very badly built housing projects, becomes in the long term more expensive than demolition and new construction.

Nevertheless the results of a design competition published in 1987 resulted in schemes for the rehabilitation of these blocks. While not tackling many of the social problems raised by the degeneration of the housing stock, this displayed some quite adventurous individual solutions. Some of the designs are not totally unlike the work of Hunt Thompson on the Lea View Estate in Hackney. In some

cases external lift shafts, entrance areas, an extra storey, the upgrading of sanitary and electrical installations, have been included along with the decision to replace flat with pitched roofs.

Whether it is due to poor design or bad construction, it would be wrong to consider that all flat roofs are inevitably flawed and problematic. It is quite possible to build a perfectly good long-lasting flat roof.

It may well be the case that Soviet architects feel more confident in preventing water penetration with the introduction of pitches, but the long-term solution to roofing and other construction problems does not lie in simply switching technologies. Pitched roofs too can leak if poorly detailed. The solution lies in the resolution of tensions that afflict the whole of the building process of which the question of the quality of building design and labour is only one aspect.

While building enterprises are struggling to motivate a total of more than 11 million building workers to improve the quality of site and factory labour, of improving the quality of prepared timber, concrete detailing and so on, they are faced with imperatives from economists of constantly raising productivity within the industry, and as of last year preparing themselves to transfer to a system of profit and loss accounting where they will be largely independent of state funding to bail them out of financial trouble.

The marriage of quality and the mass production of housing is not a problem that the Soviets face alone. For many in the West such a proposal contains insurmountable contradictions. But while it is temporarily off the agenda in Britain, it remains the long-term objective in the Soviet Union.

The Soviets have no real shortage in the availability of either materials or labour. Where they are interested in dialogue and exchange is in the development and application of practical techniques and technology for major rehabilitation work. Whether in the West we have such skills is questionable.

Arguably, here in Britain we also face immense problems in these aspects of housing. Firms may be able to export to the Soviet Union either the materials or the technology to manufacture high quality profiled sheet roofing, but in the more general areas of the social and economic consequences of modernisation and reconstruction the Soviets have as much to teach us as we have them.