

RESEARCH IN ARCHITECTURAL CONSERVATION AND HISTORIC PRESERVATION

Norway and Russia have been closely related through the ages, both geographically and historically, and have experienced similar problems relating to climate, building maintenance and national wooden architecture. As a result, the parallel study of architectural conservation and restoration theories and practices in both neighbouring Northern states makes for a stimulating collective monograph.

Architectural Conservation and Restoration in Norway and Russia delves into the main challenges of historic and contemporary architectural preservation practices in the two countries. The book consists of three main parts: the discovery and preservation of historical architecture in the late nineteenth to early twentieth century; contemporary approaches to former restorations and the conservation and maintenance of historical architecture; and, finally, current questions concerning preservation of twentieth-century architectural heritage which, due to different building technologies and artistic qualities, demand revised methods and historical evaluation.

This is a valuable resource for academics, researchers and students in different areas of architecture (medieval, nineteenth-century, wooden and contemporary architecture) as well as in the fields of art, architectural history, cultural heritage and Scandinavian and Russian studies.

Evgeny Khodakovsky is Head of the Department of Russian Art History at St Petersburg State University, Russia.

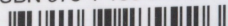
Siri Skjold Lexau is Professor of Art History at the University of Bergen, Norway.

ARCHITECTURAL CONSERVATION

Cover image: © Per-Erik Skramstad

an informa business

ISBN 978-1-138-27992-6



Routledge
Taylor & Francis Group

RESEARCH IN ARCHITECTURAL CONSERVATION AND HISTORIC PRESERVATION

Architectural Conservation and Restoration in Norway and Russia



EDITED BY

Architectural Conservation and Restoration in Norway and Russia

Norway and Russia have been closely related through the ages, both geographically and historically, and have experienced similar problems relating to climate, building maintenance and national wooden architecture. As a result, the parallel study of architectural conservation and restoration theories and practices in both neighbouring Northern states makes for a stimulating collective monograph.

Architectural Conservation and Restoration in Norway and Russia delves into the main challenges of historic and contemporary architectural preservation practices in the two countries. The book consists of three main parts: the discovery and preservation of historical architecture in the late nineteenth to early twentieth century; contemporary approaches to former restorations and the conservation and maintenance of historical architecture; and, finally, current questions concerning preservation of twentieth-century architectural heritage which, due to different building technologies and artistic qualities, demand revised methods and historical evaluation.

This is a valuable resource for academics, researchers and students in different areas of architecture (medieval, nineteenth-century, wooden and contemporary architecture) as well as in the fields of art, architectural history, cultural heritage and Scandinavian and Russian studies.

Evgeny Khodakovsky is Head of the Department of Russian Art History at St Petersburg State University, Russia.

Siri Skjold Lexau is Professor of Art History at the University of Bergen, Norway.

**Routledge Research in Architectural Conservation
and Historic Preservation**

The Routledge Research in Architectural Conservation and Historic Preservation series provides the reader with the latest scholarship in the field of building conservation. The series publishes research from across the globe and covers areas as diverse as restoration techniques, preservation theory, technology, digital reconstruction, structures, materials, details, case studies, and much more. By making these studies available to the worldwide academic community, the series aims to promote quality architectural preservation research.


<https://www.routledge.com/architecture/series/RRACHP>

Architectural Conservation and Restoration in Norway and Russia

Edited by Evgeny Khodakovsky and Siri Skjold Lexau

**Architectural Conservation
and Restoration in
Norway and Russia**

**Edited by
Evgeny Khodakovsky and
Siri Skjold Lexau**

 **Routledge**
Taylor & Francis Group
LONDON AND NEW YORK

First published 2018
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN
and by Routledge
711 Third Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2018 selection and editorial matter, Evgeny Khodakovsky and Siri Skjold Lexau; individual chapters, the contributors

The right of the editors to be identified as the authors of the editorial material, and of the authors for their individual chapters, has been asserted in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilized in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data

Names: Khodakovsky, Evgeny, editor. | Lexau, Siri Skjold, 1951– editor.

Title: Architectural conservation and restoration in Norway and Russia / edited by Evgeny Khodakovsky and Siri Skjold Lexau.

Description: New York : Routledge, 2017. | Includes bibliographical references.

Identifiers: LCCN 2017016569 | ISBN 9781138279926 (hb) | ISBN 9781315276205 (ebook)

Subjects: LCSH: Architecture—Conservation and restoration—Norway. | Architecture—Conservation and restoration—Russia (Federation)

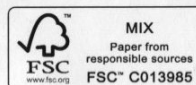
Classification: LCC NA109.N8 A73 2017 | DDC 720.28/8—dc23

LC record available at <https://lcn.loc.gov/2017016569>

ISBN: 978-1-138-27992-6 (hbk)

ISBN: 978-1-315-27620-5 (ebk)

Typeset in Goudy
by Apex CoVantage, LLC



Printed in the United Kingdom
by Henry Ling Limited

Contents

<i>List of figures</i>	vii
<i>List of editors</i>	ix
<i>List of contributors</i>	x

The Northern neighbours and their heritage: a Russian-Norwegian cultural millennium	1
EVGENY KHODAKOVSKY AND SIRI SKJOLD LEXAU	

PART I	
Nation building, assessment of historic monuments and cultural heritage management	7
1 Norwegian medieval architecture in Russian accounts (late nineteenth to early twentieth century)	9
EVGENY KHODAKOVSKY AND ARINA NOSKOVA	
2 Historical knowledge and inspiration: Nordic impact on Russian architecture (1870s–1910s)	23
EVGENY KHODAKOVSKY AND KSENIA CHEMEZOVA	
3 The Imperial Archaeological commission (1859–1918) and cultural heritage management in Russia	38
MARIA MEDVEDEVA	
4 Cultural heritage in Norway and the international exchange of ideas: A scholarly description and a personal narrative	56
DAG MYKLEBUST	

PART II

**Contemporary preservation of historic monuments: former
preservations as heritage and obstacle** 65

- 5 Facing the vulnerabilities of a medieval cathedral 67
PER SCHJELDERUP

- 6 The Faceted Palace in Novgorod the Great: the main
problems of restoration 82
ILYA ANTIPOV AND DMITRIY YAKOVLEV

- 7 The General Staff building in Saint Petersburg: from an
empire-style administrative building to contemporary art
venues for the Hermitage Museum 99
EKATERINA STANIUKOVICH-DENISOVA AND EMILIA KHODINITU

- 8 The relevance of authenticity: Eidsvoll Constitution hall
restoration 1814–2014 115
HANS-HENRIK EGEDE-NISSEN

- 9 Russian-Norwegian cooperation on cultural heritage: a
personal experience 124
DAG MYKLEBUST

PART III

Contemporary preservation of recent heritage 137

- 10 Neglected heritage: Khrushchev mass housing in Leningrad 139
EKATERINA STANIUKOVICH-DENISOVA AND DARIA LIUBIMOVA

- 11 Individual wooden dwelling houses of the first half and
middle of the twentieth century: problems of the study,
conservation and restoration 156
ANDREI BODE

- 12 Hated heritage: architecture of the Norwegian welfare state 170
SIRI SKJOLD LEXAU

- 13 Experimental preservation of an arctic settlement Piramida
on Spitzbergen: a Russian view of the 120 hours 2015
architectural competition 187
EKATERINA STANIUKOVICH-DENISOVA

Index of names 203

Index of places 207

Figures

- 0.1 Architectural conservation and restoration in Norway
and Russia: an overview map 5
- 1.1 Frantz Wilhelm Schiertz. Hitterdal (Heddal) Stave
Church, Telemark, Norway. Thirteenth century 17
- 2.1 Aleksandr Vladovskii (1876–1950). Design for a dacha
in the Norwegian style. 1st prize. 1903 28
- 2.2 a & b Aleksandr Vladovskii (1876–1950). Bathing hut (a)
and bathhouse (b) on Fëdor von Kruse's estate. 1903 30
- 2.3 a, b & c Vicenty Orzeszko (1876–after 1917). House of B.
Bystrzycki (1910s). Ulitsa Krasnoarmeiskaia 68, Tomsk 33
- 3.1 The chapel near Pereslavl'-Zalesskii before restoration 44
- 3.2 Pëtr Petrovich Pokryshkin (1870–1922) 46
- 5.1 St Swithun Cathedral in Stavanger. Eastern façade 69
- 5.2 St Swithun Cathedral in Stavanger. A carved head of
a bishop 75
- 5.3 St Swithun Cathedral in Stavanger. South-eastern tower 77
- 6.1 The Archbishop's Palace in Novgorod the Great. View
of the building from the south-east in 2006 before the
start of the restoration and in 2013 after its completion 83
- 6.2 The Archbishop's Palace in Novgorod the Great. Part
of the northern façade during the restoration work in
2007 and after its completion 88
- 6.3 The Archbishop's Palace in Novgorod the Great. The
interior of the single-pillared Gothic hall on the second
storey in 2008 before the start of the restoration and in
2013 after its completion 95
- 7.1 View from Palace Square of the Eastern Wing of the
General Staff building that today houses departments of
the State Hermitage 104
- 7.2 Model of the Eastern Wing of the General Staff
building. Design by the architect Nikita Yavein,
Studio 44 107
- 7.3 The great amphitheatre staircase in the fifth courtyard
of the Eastern Wing of the General Staff building 110
- 8.1 The Eidsvoll house, garden façade 116
- 8.2 The Eidsvoll House, main façade before the restoration 117

viii *Figures*

8.3	Oscar Wergeland: Eidsvoll 1814	120
8.4	Window in the Constituent Assembly Room after restoration	122
9.1	St. Nicholas Chapel in the village of Vershinino in the Kenozero National Park in Arkhangelsk oblast. Seventeenth century	127
9.2	Filippovskaya (Pochozerskii pogost), Kenozero. Church of the Procession of the Venerable Wood of the Cross. 1700	129
10.1	Assembly of a large-panel apartment house on Block 123 of Ivanovskaya Ulitsa in the Neva District of St Petersburg	144
10.2	The experimental Block 122 of standard-design housing in the Neva District	145
10.3	Apartment house of the OD series. 115, Babushkina ulitsa, St. Petersburg. Constructed in 1964	147
10.4	Apartment house of the 1-LG-507 series. 16, Torzhkovskaya ulitsa, Saint Petersburg. Reconstructed in 1999–2001	151
10.5	Apartment house of the OD series, 117, Babushkina Ulitsa, building 1. Renovated between 1994 and 1996	152
11.1	The main types of layout found in twentieth-century wooden houses	160
11.2	A mid-twentieth-century house in the village of Krivtsovo, Moscow region	162
11.3	A house from the first half of the twentieth century in the village of Pavel'tsevo, Moscow Region	164
12.1	Erling Viksjø: the H-block of the Government Quarter in Oslo, 1958	175
12.2	Integrated art works designed by Picasso in the Y-block	177
12.3	Erling Viksjø: Competition entry <i>Gård i gård</i> , 1951	179
12.4	Natural concrete at the end wall of the Town Hall in Bergen	180
12.5	Harald Ramm Østgaard: The Natural Sciences Building, Allégaten 41, Bergen, 1977	181
12.6	Interior materials of the Natural Sciences Building	183
13.1	The Pyramiden settlement, Spitsbergen	191
13.2	The winning project of <i>120 Hours 2015 Experimental Preservation – Remember work?</i> Jarand Nå and David Ottosson (Lund School of Architecture)	193
13.3	The second prize of <i>120 Hours 2015 Experimental Preservation – Axis of Pyramiden</i> . Matyáš Švejdlík, Academy of Arts, Architecture & Design in Prague; Marek Nedelka, Technical University of Liberec; Pavel Špringl, Technical University of Liberec, Czech Republic	195
13.4	The Polish project that received an honourable mention at <i>120 Hours 2015 Experimental Preservation – Vanished into thin air . . .</i> Agnieszka Lewicka, Monika Frydryszak and Michał Witkowski (Warsaw University of Technology, Poland)	196
13.5	The Russian project that received an honourable mention at <i>120 Hours 2015 Experimental Preservation – Imprint</i> . Anvar Garipov, Lyubov Timofeeva and Radmir Gelmutdinov	

Editors

Evgeny Khodakovsky is the Head of the Department of Russian Art History at St Petersburg State University, Russia. He lectures on the history of the art and architecture of the Russian North, Russian Medieval Art, folk art, wooden architecture and the history of restoration in Russia and Europe.

Siri Skjold Lexau is Professor of Art History at the Department of Linguistic, Literary and Aesthetic Studies, University of Bergen, Norway. Her primary research activity is linked to the history of architecture and urban studies. She has published widely on the history of transformation of sites and buildings.

Contributors

Ilya Antipov, Assistant Professor, PhD at the Department of the History of Russian Art, St Petersburg State University. The main topic of his research is the history of Old Russian architecture, building materials and technology. He has conducted archaeological investigations on many monuments of Novgorodian architecture of twelfth to seventeenth centuries. Laureate of the Prize of the Government of Russia (2015).

Andrei Bode, Architect-Restorer, PhD in Architecture. Researcher at the Institute of Theory and History of Architecture and Urban Planning, Moscow. Research and creative interests: history of wooden architecture, ancient traditions. Author of books and articles on the wooden architecture of Russia and problems of restoration.

Ksenia Chemesova, independent researcher. She holds a Master's Degree in Art History from St Petersburg State University. Her fields of interests are the medieval architecture of Scandinavia and Western Europe, as well as restoration history.

Hans-Henrik Egede-Nissen is a cultural heritage conservation officer at the Norwegian Defence Estates Agency. His PhD thesis (2014) from the Oslo School of Architecture and Design raises questions about the universal relevance of authenticity. He takes a particular interest in nineteenth-century architecture as well as military architecture from all periods.

Emilia Khodinitu, Public Relations Manager, Department of Marketing, the Palace of Culture for Educators – the Yusupov Palace, St Petersburg, Russia. Her fields of interests are contemporary museum architecture, urban planning, museum management, digital museum learning.

Daria Liubimova, independent researcher. Her primary research interest is the history of Soviet architecture from early constructivist theories to the city-planning and urban development of the 1950s–1960s.

Maria Medvedeva, Head of the Research Archive at the Institute for the History of Material Culture, Russian Academy of Sciences. She holds a PhD in

History. Her main fields of interest are the archival research and the cultural heritage management in the Russian Empire and early Soviet Russia.

Dag Myklebust, former Senior Adviser at the Norwegian Directorate of Cultural Heritage. He has a Master's Degree in Art History, and from 1984 he worked with Building Preservation in the Directorate. From 1991 on, he shifted to international work, representing Norway in the Cultural Heritage Committee in the Council of Europe. Between 1995 and 2010, he was the leading specialist in the Norwegian-Russian co-operation on Cultural Heritage Protection. He provides research on the early history of the Norwegian Directorate of Cultural Heritage.

Arina Noskova, Research Fellow and the Scientific Secretary of the Department of the Wooden Architecture at the Scientific-Research Institute of the Theory and History of Architecture and Urban Planning. She specializes in wooden ecclesiastical architecture of north-western Russia and archival research.

Per Schjelderup, Restoration Architect, Schjelderup & Gram Architects, Stavanger. Associate professor at the Faculty of Arts and Humanities, University of Stavanger. He is, together with partner Live Gram, responsible for several cultural heritage restorations of national significance.

Ekaterina Staniukovich-Denisova, Senior Lecturer at the Department of Russian Art History, St Petersburg State University. Her main fields of interest are the architecture of St Petersburg of the eighteenth and nineteenth centuries, Russian-European relationships in art and culture, Swedish and Finnish architecture, archival collections, city-planning and culture heritage.

Dmitriy Yakovlev, Project Architect at the Central Scientific-Restoration Project Workshops (Moscow), Historian of Architecture, a member of the Union of Restorers of Russia, Laureate of the Prize of the Government of Russia (2015). His projects are mostly related to the Russian medieval architecture (Moscow, Novgorod the Great, Solovetsky monastery).

10 Neglected heritage

Khrushchev mass housing in Leningrad

Ekaterina Staniukovich-Denisova and Daria Liubimova

The term “Khrushchev’s legacy” is predominantly associated with his policies and the cultural “Thaw”, the various aspects and significance of which continue to be studied today. With regard to the architectural legacy of that period, things are far more complex. On the one hand, the considerable efforts made by specialist historians and architects to achieve recognition of the value of works of Soviet avant-garde architecture from the 1920s and 1930s and the need to preserve them (e.g., *Future Anterior: Journal of Historic Preservation, History, Theory, and Criticism*, Vol. 5, No. 1, Special Issue on the Preservation of Soviet Heritage [Summer 2008]) opened up the way for recognition of the next phase of Modernist architecture – in the period between the second half of the 1950s and the 1980s (the exhibition “Soviet Modernism 1955–1991. Unknown Stories” at the Architekturzentrum in Vienna in 2013; the creation of an Institute of Modernism in Moscow in 2015; and publication of a special reference guidebook [Bronovitskaya et al. 2016]). On the other hand, instances of the scientific restoration of such buildings remain very rare (the Mel’nikov House in Moscow), and even internationally recognized edifices (Moisei Ginzburg’s Narkomfin Building in Moscow, or Erich Mendelsohn’s electric substation in St Petersburg) are in a parlous state. Given this situation, does it make sense to raise the question of the preservation of examples of ordinary housing development?

The “micro-districts” of housing constructed in the USSR on the initiative of Nikita Khrushchev (first secretary of the Communist Party’s Central Committee in 1953–1964) in the second half of the 1950s and 1960s are at present on the whole rejected by specialists and broad sections of the public (Meuser and Zadorin 2015) as architectural and artistic heritage. The criticism levelled at them includes accusations of sweeping standardization of extremely simplified artistic approaches and of the pursuit of cost reductions at the expense of the convenience of the living space and the quality of the building work (when better-quality housing appeared, people even coined the disparaging term *khrushchoby* patterned on the word *trushchoby*, meaning “slums”). The construction of mass housing under Khrushchev in both rural and urban areas remains a still incompletely comprehended period in Soviet architecture and is most often examined as a phenomenon in cultural history (Gorlov 2015), although positive shifts in the study of it have become clearly evident in recent years (Varga-Harris 2008; Grishin and Ovcharenko 2012; Kazakova 2013; Appolonov 2013; Harris 2013; Meerovich 2016: 32).

In housing construction in the USSR of the 1950s, several fundamental problems accumulated: urbanization, a severely insufficient housing stock due to the destruction of the Second World War, the critical dilapidation of temporary housing for workers and a trend for people to seek to live separately in single-family units. In the 1920s, the construction side of Soviet housing policy had been directed towards communal living in hostels, house-communes, barracks-type housing and so on (Meerovich 2005: 182). In apartment houses with several storeys, families of “ordinary people” were also allotted housing by the room. The revolutionary idea of the commune and a collective way of life did not prove successful. After the war a pressing need arose for the mass-scale relocation of citizens out of barracks, hostels, communal flats and other housing “unsuitable for the purpose” into very basic, but nonetheless individual, single-family units, and it was this need that Khrushchev’s programme of mass construction was intended to meet. It became one of the chief fields of the Thaw-era reforms that became known as the “revolution in social and everyday life”, an important result of which was that Khrushchev rehabilitated such elementary human needs as housing, clothing and food. “The new approach expressed itself most fully in the push for housing construction, for individual apartments. Even if that flat did not exist, even if it only loomed indistinctly as a long-term prospect ten years hence – the very legitimacy of being able to aspire to a home of one’s own gave legitimacy to the desire to have furniture that met one’s personal tastes, more than that, it legitimized the very right to have individual tastes, to be an *I* different from the *we*” (Popov 1994: 47). On the other hand, this was a physiologically minimal standard of housing, and the new apartments were physically unable to accommodate non-standard “family heirloom” furniture (no matter whether the family had been noble or peasant) and could take only modern-day regular furniture and fittings. The micro-districts of Khrushchev housing were supposed to become an incubator for the builders of the “bright future” that was Communism.

The priorities for architectural and constructional practice changed. Now individual architects or teams of them (architectural studios) focussed not only on designing unique one-off objects (Khan-Magomedov 2013). There was active development of designs for an apartment house of a new type to be reproduced in large numbers. This was made possible by the authorities, and after them the architects, acknowledging social problems and demands as something that should shape contemporary architecture (Khan-Magomedov 1958: 47).

Besides social issues, artistic ones were also raised. In the early years of the deployment of concrete panel construction on a mass scale (1957–1960s), architects repeatedly held forth in a propagandist manner on the pages of the magazine *Arkhitektura SSSR* (Architecture of the USSR), attempting to give a new interpretation to aesthetic concepts. The basic tenet became an updated thesis of functionalism, that

the beauty of architectural forms arises as a quality determined by the utilitarian and functional aspect of the architectural construction.

(Minervin and Fedorov 1958: 42)

A high aesthetic value was attributed to “pure” art, truthful and logical, in which function and construction closely interact. The Thaw made active contacts with the West possible. Under the slogan “We’ll catch up and overtake!”, groups of architects were sent on working visits abroad so as to study and then make maximum use of contemporary mainstream European and American achievements. They brought back numerous samples and architectural journals. Personal contacts were established, and Soviet architects participated in international competitions (Yakushenko 2016; Bellat 2007, Bellat 2014). French and Scandinavian expertise in industrial construction methods was of particular interest. Soviet architects also participated in the UN-Habitat programme that addressed the topics of renewal and mass construction.

Architects devoted attention to questions of a compositional urban-planning character as a means of bringing beauty into the functionally rational system of a micro-district. For example, the method of placing buildings around the perimeter of a city block, which was traditional for the centre of Leningrad, was replaced by a less rigid layout. Landscape architecture also became popular. On the initiative of Liubov’ Zaleskaia, in 1955, the Moscow branch of the Architects’ Union created a “Greenery” section that later became the Commission for Landscape Architecture. The use of natural elements in the architectural and planning composition of the city was promoted with the large-scale landscaping of open spaces, improvement of public gardens, and the like. This compensated for the fairly Spartan look of the residential buildings. Today it is specifically the abundance of greenery that makes these neighbourhoods attractive to their residents.

The simplicity with which the façades were finished was attributed to the pointlessness of various decorative “embellishments” (according to the ideological programme of government resolutions) and was regarded as one of the main aesthetic properties of contemporary architecture along with the innovations of technology (Autio-Sarasma 2001). This aspect again makes it possible to detect a link between the architecture of Khrushchev’s time and the works of the Constructivists. Post-war Soviet architects, nonetheless, coyly denied any direct connection with the Constructivists, accusing them of blind devotion to “formalism”, the pursuit of non-standard and unusual designs, which allegedly did not always accord with the functions of the building. The line of continuity running through the whole evolution of Soviet architecture was, however, evident. It is well known that architects suffered less than all other creative professions from the Stalinist repressions. Uninterruptedly from back before the revolution, through changes of name and structure, architects received highly professional training in the schools of Leningrad (the Institute of Civil Engineers – the Leningrad Institute of Communal Construction Engineers – the Leningrad Engineering and Construction Institute and Petrograd’s VKhUTEMAS – Leningrad’s VKhUTEIN [1921–1923–1930] – Repin Academy of Arts) and Moscow (VKhUTEMAS – Moscow Architectural Institute). Soviet architects as the creative profession most dependent on state commissions flexibly changed their style depending on the conditions. A creative position differing from the party line could provide the occasion for eliminating a competitor. Unarguably, simplicity and concision

as a means of conveying constructional and functional logic were perceived as a positive aesthetic quality in both periods of Soviet Modernism (the “first” being Constructivism, the “second” under Khrushchev). As early as 1972, however, in *Arkhitektura SSSR*, Andrei Ikonnikov declared it necessary to emphasize the difference between simplicity as a quality of art that emerges from the synthesizing work of the artist and as a product that arises automatically from the restriction of the set of tasks expected of architecture by excluding the artistic ones (Ikonnikov 1972: 8). Mass construction was annihilating architecture as an art form. It was becoming too monotonous and soulless, which in Iurii Kurbatov’s opinion was the result of introducing methods of “primitive technologism” as the worst variety of functionalism (Kurbatov 2008: 111).

Total rejection of the mass housing projects of the Khrushchev era does not, however, solve the problems of their comprehension. Moreover, minimalizing their good points in every possible way is not conducive to the processes of renovation. They did perform their historical mission, meeting the minimum requirements for family housing. According to Henry W. Morton’s data, between 1956 and 1970, 126.5 million Soviet citizens, over half the population of the country, moved into new homes (Varga-Harris 2011: 164–165).

It was from the middle years of the century that Soviet architecture began to return to “the highroad of the style-setting development of world architecture” (Khan-Magomedov 2013: 130–140) – in other words, to post-war Modernism. In residential architecture under Khrushchev a revolutionary transition took place to industrial standardized methods of construction. The prefabricated elements were produced by integrated house-building factories with assembly and installation taking place directly on the building site. The keynote in the process was economy – of both materials and time. As a consequence, the dimensions of the flats were reduced, building materials and structures standardized. The whole country became one huge building site, funded from the budget without economic benefits in the short term. The factories simply could not allow themselves to produce elements for individualized designs, which would have meant rejigging the production lines.

The solution to that problem was standard design series intended for large-scale housing developments. There were all-union, republican and city series of apartment blocks. In Leningrad the main series ended up being 1-506, OD, 1-335, 1-464, 1LG-507, 1-528kp and GI-1, 2, 3 and 4, together with their later modifications. The letters are indications of either the designing organization or the manufacturer.

Standardized prefabricated construction in Leningrad

The shift to an industrialized method of construction in Leningrad coincided with the drafting of a general plan for the city covering the period 1957–1965. Design studios worked on projects for neighbourhoods (up to 150 hectares) of standardized five-storey housing without lifts without incorporating premises for social facilities and everyday services. Separate standard designs were developed

for pre-school institutions, schools, shops and blocks for social facilities and everyday services. Designs for cinemas would appear later. By 1965, ten new housing areas were created in accordance with the “theory of a multi-tiered formation of housing and service system: micro-district – city block – residential district – planning district”. In all this, one of the most important tasks laid out in the general plan for the development of Leningrad as a leading industrial and cultural centre was “the limitation of further territorial expansion and reduction of density with a cessation of new industrial construction” (Sementsov 2008: 12). This was supposed to lead to the stabilization (or even reduction) of the population of Leningrad and its redistribution into satellite towns. The rapid changes in the structure of the city through the creation of consolidated areas of land suitable for building facilitated the mass-scale industrialized method of construction.

Standardized construction using factory-made elements began in Leningrad later than in other cities. There was no strong base of industrial enterprises for the development of prefabricated construction, so time was needed to set up production. In May 1955, the first apartment house made of large panels was constructed at 10 Ulitsa Poliarnikov. Outwardly it resembled the *stalinki* (the colloquial name for apartment houses with several storeys put up between the second half of the 1930s and the early 1950s). Then, in 1956–1958, apartment houses were erected on blocks number 122 and 123 in the Nevsky district 9 (Figs. 10.1 and 10.2).

The first series of large-element prefabricated apartment houses in Leningrad (1-506) was developed on the basis of these buildings. Despite the fact that it was the first experimental series of large-panel prefabricated construction in Leningrad, this series has basic characteristics that place it in the *stalinka* category.

The principle used to differentiate between *stalinka* and *khrushchevka* (the simplified terms used everywhere for the large-panel prefabricated apartment houses from the period in question) is not so much chronological as structural. Apartment houses of the Stalin period typically had spacious rooms all opening into a corridor, a separate bathroom and toilet in each flat, high (3 metre) ceilings, good-quality finishing of the façade panels (more often than not including decorative motifs), and full or partial facing with tiles or sand-lime brick. The ground floor might be faced with concrete slabs. The 1-506 still conformed to that pattern. Meanwhile in Moscow, as a first experimental effort, they constructed apartment houses in the ninth block of Novye Cheremushki, which already accorded fully with the definition of *khrushchevka*. Nevertheless, in Leningrad they did not suspend the construction of other series that real-estate brokers today place in the *stalinka* category, such as the brick-built 1-405 series (a design created as far back as 1953) and the 1-460.

Soon the designing of typical *khrushchevki* began. The efforts of the Leningrad branch of the *Gorstroiproekt* state design institute in 1957–1958 produced the series 1-335. Its constructional basis was a frame-and-panel design with an internal frame, transverse girders and load-bearing external walls (Zhuravlev, Naumova 1975: 569). This made it possible to reduce the weight of walls between rooms (8 cm) and between apartments (two layers of the same slabs with a 4 cm air gap between them). The series proved to have substantial shortcomings: thin



Figure 10.1 Assembly of a large-panel apartment house on Block 123 of Ivanovskaya Ulitsa in the Neva District of St Petersburg. Photograph from the magazine *Arkhitektura SSSR*, 1958, No. 1, p. 30.

separation walls and external walls leading to very poor noise insulation and great heat loss, and combined bathroom and toilet. However, the absence of internal load-bearing walls makes it possible to change the layout of apartments during renovation.

The OD series (produced by the Obukhovskii Domostroitel'nyi Kombinat – Obukhovo House-Building Factory) was designed by the Lenproekt Institute in 1959–1960. This design was analogous to the K-7 first mass series in Moscow. The



Figure 10.2 The experimental Block 122 of standard-design housing in the Neva District. Photograph from the magazine *Arkhitektura SSSR*, 1958, No. 1 (article by Iu. Shass, "Blocks of large-panel apartment houses in Leningrad", pp. 30–38).

need to demolish such buildings is not disputed nowadays as they have the same serious shortcomings as the 1-335 series, further exacerbated by the absence of balconies (Fig. 10.3).

The 1-464 series was a design produced in 1958 by the all-union state design institute Giprostroindustriia belonging to Gosstroï, the State Committee for Construction. Its constructional distinction lay in the close spacing of the load-bearing transverse walls (2.6 or 3.2 metres apart), the panels of the external and internal walls being the size of one room and the floor/ceiling panels being supported at the edges.

The series most widely used in Leningrad were the GI and ILG-570. The GI series was designed in the Lenproekt institute in 1959. It had a frameless constructional design with three longitudinal load-bearing walls. The external walls differed from all other series in having two horizontal rows of elements for each storey. The main constructional distinction of these five-storey buildings was strong walls built of aerated concrete, which makes it possible to reconstruct them and extend them upwards. It should be noted, though, that the materials from which the GI series buildings were made have been found to contain a considerable amount of asbestos, raising health concerns. A serious shortcoming of the GI series is the lack of balconies. On the other hand, they contain only three- to five-room flats with windows on both sides of the building, which makes it possible today to alter the layout and make them more comfortable.

The ILG-570 series was also designed in the Lenproekt institute in 1959, and again it has a frameless constructional design with three longitudinal load-bearing walls. The external finish of the panels is modest and restrained – large ceramic tiles or smaller ones (supplied on sheets). In all the flats the toilet and bathroom are separate, which is an undoubted advantage. The location of the ILG-570 series buildings is advantageous, as they are found in the Moskovsky district, where real estate prices are among the highest in Saint Petersburg.

The 1-528kp series is the best in terms of quality as it was built of brick. The majority of the buildings have balconies, but the five-storey versions often have bay windows with red insets. In this case the bay windows are a felicitous artistic decision, producing a pleasing play of shapes on the surface of the facade.

Each series of buildings was allotted to particular house-building factories that then produced them. As a result, the various series are distributed unevenly across the city, being concentrated in groups in certain districts and neighbourhoods. This makes the implementation of renovation projects targeted at specific series easier. At the same time, the fact that these apartment houses cover several adjacent city blocks at once complicates the process of renovation, if we presume that it will be carried out a block at a time, covering a large residential neighbourhood.

Ways of modernization and the problems of the Khrushchev mass housing in St Petersburg

The problems associated with the present-day exploitation of the standard five-storey apartment blocks belonging to the first mass series lie in the cramped space



Figure 10.3 Apartment house of the OD series. 115, Babushkina ulitsa, building 5. Constructed in 1964. Photograph by D. Liubimova, 2017.

Within the housing stock of Saint Petersburg, flats belonging to the first mass series make up about 8.9 million square metres, or roughly 10 per cent. The approach to solving the problem of *khrushchevki* has changed twice. In the year 2000, the government of Saint Petersburg published a resolution that approved a “Regional Programme for the Reconstruction of Apartment Houses of the First Mass Series” (Government 2000). A number of buildings did undergo refurbishment. Eight years later, however, in 2008, a new municipal law was adapted on a targeted programme for “The Development of Built-Up Areas in Saint Petersburg” that envisaged the rehousing of the residents of the mass-series apartment houses and their subsequent demolition (or, in only a few cases, partial reconstruction). Reaction to these programmes found reflection both in professional discussion (the international congress on “Modernization of Apartment Houses of the First Mass Series and the Utilities Infrastructure of Cities, Towns and Settlements” held in Saint Petersburg on 23–26 May 2000) and in an upsurge of publications on the subjects in the periodic press (Kurbatov 2000: 18–21).

Nevertheless, work carried out to refurbish mass-series apartment houses in Saint Petersburg has not been extensive. Large-scale projects such as the complete reconstruction of a building or renovation with extension upwards have been sporadic and were experimental, pilot versions. In the main, refurbishment is following the mini-modernization scenario (a general overhaul without rehousing the residents or changing the layout of the flats). The main method of redecorating the façades has been to paint them in different colours, accentuating the vertical features above the entrance doorways.

A more serious modernization project is the reconstruction of the building with the addition of a mansard storey without rehousing the occupants. The pilot version of such a renovation was carried out on a building of the 1LG-507 series (on Torzhkovskaya Ulitsa) (Fig. 10.4) in 1999–2001.

This was the first experimental upward extension of a prefabricated five-storey building in Russia. It was carried out by the firm LENZHILNIIPROEKT in collaboration with Scandinavian companies (including the “Foundation for Mansard Housing in Russia”). This isolated experience proved positive, but it has never been repeated on other buildings.

Probably the most radical example of complete renovation was the apartment house at 117, Ulitsa Babushkina (Fig. 10.5).

The work, carried out between 1994 and 1996, included rehousing the residents for the duration. The next stage was the construction around the building, on a separate foundation of an additional frame at a distance from the walls of the original building that supported the new structures (storeys). As a result, the width of the apartment house increased by 2.5 metres, and four new floors were added. The existing apartments were enlarged: the rooms up to 19 m², the kitchens to 10–12 m², while bathroom and toilet were separated.

Similar renovation projects (the addition of a mansard storey or two to four extra floors) have been carried out in Moscow until very recently in far greater numbers. Moreover, Moscow’s Department of Urban-Planning Policy issued methodological recommendations in 2013 on drawing up plans for the reconstruction of



Figure 10.4 Apartment house of the 1-LG-507 series. 16, Torzhkovskaya ulitsa, Saint Petersburg. Reconstructed in 1999–2001. Photograph by D. Liubimova, 2017.



Figure 10.5 Apartment house of the OD series, 117, Babushkina Ulitsa, building 1. Renovated between 1994 and 1996. Photograph by D. Liubimova, 2017.

apartment houses of the early mass series with extension upwards or outwards. In February 2017, however, President Putin in a conversation with Sergei Sobianin, the mayor of Moscow, spoke of the advisability of demolishing Moscow's *khrushchevki* instead of carrying out a general overhaul of them. That, in the president's opinion, is what Muscovites expect (the *Today* news programme, NTV channel, 21 February 2017).

It is precisely this last, radical method of modernizing the neighbourhoods of mass prefabricated panel buildings (i.e. demolition) that is gradually beginning to be implemented in Saint Petersburg. The method employed in such cases is that the chosen developer first constructs a new apartment house near the *khrushchevki* slated for demolition and then rehouses people from them into the new building. The plot of land vacated after demolition becomes the property of the developer.

Today in Saint Petersburg we see very little interest in the modernization and reconstruction of apartment houses belonging to the mass series of Khrushchev's time. The actual implementation most often takes the form of an ordinary general overhaul, while radical reconstructions are no more than isolated instances. Building companies in Saint Petersburg, in contrast to Moscow, are not suffering from an acute shortage of plots for the expansion of the housing stock. At the present time, huge estates are being constructed in remote districts on the outskirts.

Another serious obstacle is the economic expense. Unarguably any refurbishment requires capital investment, and the state more often than not needs to get private investors involved. However, while in the case of a reconstruction it proves possible to cover the investors' outlay through the sale of apartments in the mansard storey or additional floors; in the case of mini-modernization or maximum modernization it is the state that plays the chief role. A return on those investments is possible only in the long term, through significant reductions in expenditure on the heating of the apartments thanks to the insulation of the façades.

Specialists have already begun to give commentaries in response to the Russian president's recent pronouncement about the total demolition of Moscow's *khrushchevki*. In an interview with *Afisha Daily* (<https://daily.afisha.ru/cities/4676-eta-arhitektura-ekonomit-nashi-emocii-anna-bronovickaya-o-pyatietazhkah>), Anna Bronovitskaya, an architectural historian specializing in Modernism, talks about the opportunities that those buildings can provide residents, if their small apartments are occupied by a single person or a couple rather than a large family. She pointed to ecological damage the city might also suffer from the demolition of those buildings and infill construction, leading to greater pollution and the destruction of green areas. Referring to the exemplary ninth block of Moscow's Cheremushki district, which has the status of a "valuable city-forming fragment", but where not a single residential building is protected from reconstruction, Bronovitskaya postulates the aesthetic value of such architecture, which makes it possible to speak of heritage and thus of a right to preservation and protection. What does she see their non-historical value as being for people today? In the fact that "just as the outward appearance of this architecture economized on human emotions, the space in a small apartment saves physical effort" providing for comfortable living in a large city.

References

- Akhmedova, Elena and Borisova, Elena (2012). "Mirovoi opyt reorganizatsii massovoi zastroiki 60–70-kh gg. XX v. v krupneishikh gorodakh" [International Experience in the Reorganization of Mass Construction Projects in the 1960s – 70s in Megalopolises]. In: *Vestnik SGASU. Gradostroitel'stvo i arkhitektura*. [Bulletin of Samara State University of Architecture and Construction. Urban Planning and Architecture]. No 1. p. 10.
- Appolonov, Aleksei (2012). "Arkhiturnaya sreda Sankt-Peterburga s uchetom social'no-demograficheskikh osobennostei prozhivaniia malomobil'nykh grupp naseleniia v zhilykh domakh massovykh serii" [The St. Petersburg architectural environment taking into account socio-demographic characteristic of people with limited mobility living in mass series housing] In: *Vestnik grazhdanskikh inzhenerov* [Civil Engineers' Bulletin 6 (35)], pp. 5–8.
- Appolonov, Aleksei (2013). "Osnovnye napravleniia rekonstruktsii zhilykh domov massovykh serii Sankt-Peterburga" [The Main Trends in Reconstruction of Mass-Series Apartment Houses in Saint Petersburg] In: *Vestnik grazhdanskikh inzhenerov* [Civil Engineers' Bulletin] No 2 (37) pp. 10–13.
- Autio-Saraso, Sari (2001). "Khrushchev and the Challenge of Technological Progress". In: *Khrushchev in the Kremlin: Policy and Government in the Soviet Union, 1953–1964*, ed. Jeremy Smith and Melanie Ilic. New York: Routledge. pp. 133–149.
- Bellat, Fabien (2007). *France-URSS: Regards sur l'architecture (1931–1958)*. PhD thesis, Department of Art History and Archaeology, Paris West University Nanterre La Defense (University of Paris X).
- Bellat, Fabien (2014). *Amériques-URSS: Architectures du défi*. Paris: Chaudun.
- Bronovitskaya, Anna, Malinin, Nikolai and Kazakova, Olga (2016). *Moskva: Arkhitektura Sovetskogo Modernizma* [Moscow: Soviet Modernist Architecture 1955–1991: A Guidebook]. Moscow: Garage.
- Chuilova, I., Kravchenko, Viktor (2011). "Kompleksnye metody rekonstruktsii i modernizatsii massovoi zhiloi zastroiki" [Complex methods of reconstruction and modernization of mass housing construction] In: *ACADEMIA. Arkhitektura i stroitel'stvo*. [ACADEMIA. Architecture and Construction] No 3. p. 100.
- Gorlov, Vladimir (2015). "Izmeneniia zhiznennykh tsennostei sovetskikh liudei pri reshении zhilishchnoi problemy v 1950–1960-e gody" [Changes in Soviet People's Values in Life During the Solving of the Housing Problem in the 1950s–1960s]. In: *Vestnik MGOU* [Herald of Moscow State Regional University], Series: History and Political Science, No 1. pp. 55–62.
- Government of St. Petersburg. (2000). O regional'noi programme rekonstruktsii zhilykh domov pervykh massovykh serii v Sankt-Peterburge. Postanovlenie ot 10.02.2000 No 4. [On the regional programme for reconstruction of housing of the first mass series in St. Petersburg. Decree of 10 February 2000 No 4] <http://docs.pravo.ru/document/view/528269/641687>. Accessed 13 January 2017.
- Grishin, Sergei and Ovcharenko, Daniil (2012). "O evropeiskom opyte sokhraneniia massovoi zhilishchnoi zastroiki industrial'nogo domostroeniia vtoroi poloviny XX v." [On the European Experience of Conservation of Mass Industrial-Built Housing From the Second Half of the 20th Century] In: *Vestnik grazhdanskikh inzhenerov* [Civil Engineers Bulletin] No 6 (35).
- Harris, Steven E. (2013). *Communism on Tomorrow Street: Mass Housing and Everyday Life After Stalin*. Washington, DC: Woodrow Wilson Center Press; Baltimore: Johns Hopkins University Press.
- Ikonnikov, Andrei (1966). *Esteticheskie problemy massovogo zhilishchnogo stroitel'stva* [Aesthetic problems of mass housing construction] Leningrad: Stroizdat, 1966. p. 51.
- Ikonnikov, Andrei (1972). "Funktsiia, forma, obraz". [Function, Form, Image] In: *Arkhitektura SSSR* [Architecture of the USSR], No 2. p. 8.
- Kazakova, O. (ed.) (2013). *Estetika otpelei: novoe v arkhitekture, iskusstve, kul'ture* [Aesthetics of the Thaw: What Was New in Architecture, Art, Culture]. Moscow: ROSSPEN.
- Khan-Magomedov, Selim (1958). "O roli arkhitektoora v pereustroistve byta" [On the Role of the Architect in the Reconstruction of Everyday Life". In: *Arkhitektura SSSR*. [Architecture of the USSR], No 1. p. 47.
- Khan-Magomedov, Selim (2013). "Khrushchevskii utilitarizm: pliusy i minusy" [Khrushchev's Utilitarianism: The Pros and Cons]. In: *Estetika otpelei: novoe v arkhitekture, iskusstve, kul'ture* [Aesthetics of the Thaw: What Was New in Architecture, Art, Culture]. Moscow: ROSSPEN.
- Kurbatov, Iurii (2000). "Rekonstruktsiia piatiэтаzhek i arkhitekturno-gradostroitel'noe edinstvo goroda" [Reconstruction of the Five-Storey Buildings and the Architectural and Urban-Planning Cohesion of the City] In: *Zodchii. 21 vek, Vestnik* [Architect. 21st Century, Bulletin]. St. Petersburg. pp. 18–21.
- Kurbatov, Iurii (2008). *Petrograd. Leningrad. Sankt-Peterburg. Arkhitekturno-gradostroitel'nye уроки* [Petrograd. Leningrad. St. Petersburg. Architectural and Urban Planning Lessons]. St. Petersburg: Iskusstvo SPb.
- Meerovich, Mark (2005). *Kvadratnye metry, opredeliaiushchie soznanie. Gosudarstvennaia zhilishchnaia politika v SSSR. 1921–1941* [Square Metres Determining Perceptions: State Housing Policy in the USSR. 1921–1941]. Stuttgart: Ibidem-Verlag.
- Meerovich, Mark (2016). "Ot kommunal'nogo – k individual'nomu: neizuchennye stranitsy zhilishchnoi reformy N.S. Khrushcheva" [From Collective to Individual: Unexplored Pages of Khrushchev's Housing Reform]. In: *Vestnik TGASU* [Vestnik of Tomsk State University of Architecture and Building] No 2. pp. 28–33.
- Meuser, Phillip and Zadorin, Dimitrii (2015). *Towards a Typology of Soviet Mass Housing*. Berlin: DOM Publishers.
- Minervin, Georgii and Fedorov, Mstislav. (1958). Ob esteticheskikh kachestvakh massovogo stroitel'stva [On the aesthetic qualities of mass construction] In: *Arkhitektura SSSR*. [Architecture of the USSR], No 2. p. 42.
- Popov, Gavriil (1994). "Uroki Khrushcheva" [The Lessons of Khrushchev] In: *Dialog* [Dialogue] No 8.
- Sementsov, Sergei (2008). "Gradostroitel'noe razvitie Leningrada 1957–1965" [The Urban-Planning Development of Leningrad, 1957–65] In: *Vestnik grazhdanskikh inzhenerov* [Civil Engineers Bulletin] No 1 (14).
- Varga-Harris, Christine (2008). Homemaking and the Aesthetic and Moral Perimeters of the Soviet Home during the Khrushchev Era. In: *Journal of Social History* No 41 (3). pp. 561–589.
- Varga-Harris, Christine (2011). "Khrushchevka, kommunalka: sotsializm i povsednevnost' vo vremia 'otpelei'" [Khrushchovka, Communal Flat, Socialism and Everyday Life During the "thaw"]. In: *Noveishaia istoriia Rossii* [Modern History of Russia], No 1, pp. 160–166.
- Yakushenko, Olga (2016). "Soviet Architecture and the West: The Discovery and Assimilation of Western Narratives and Practices in Soviet Architecture in the late 1950s – 1960s". In: *Laboratorium*. 2016. No 8(2). pp. 76–102.
- Zhuravlev, Anatolii and Naumova, Nataliia. (1975). "Arkhitektura zhilykh i massovykh obshchestvennykh zdaniy 1955–1970" [The Architecture of Residential and Mass-Produced Public Buildings 1955–1970]. In: *Vseobshchaia istoriia arkhitektury* [A General History of Architecture], Vol. 12, Book 1, Moscow: Izdatel'stvo literatury po stroitel'stvo. p. 569.