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Early Iron Structures at the Hermitage in St. Petersburg—Unique Testimonies to Construction History and the Associated Preservation Problems

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Introduction

The State Hermitage Museum in St. Petersburg is one of the world's most important museums of fine art. It is housed in a former tsarist palace complex, the buildings of which, with their baroque and classical façades, are key landmarks in the city (*Fig. 1*). Less well known, however, is the fact that these buildings offer a unique tour of one of the most exciting chapters in the history of construction—the emergence of building with iron in the first half of the 19th century. The exhibits—in this case hidden from the public—are the many surviving iron structures supporting the floors and roofs. These date from the years 1838 to 1851, and their existence can be wholly put down to the devastating fire at the Winter Palace in December 1837. Fire-resistant



Fig. 1: The State Hermitage buildings (from left to right): the Large or Old Hermitage (1771–1787) with the New Hermitage (1839–1851) behind, the Small Hermitage (1764–1775) and the Winter Palace (1754–1762) (courtesy Sinjaver)