Güney-Doğu Avrupa Araştırmaları Dergisi
Yıl: 2017-2 Sayı: 32 S. 11-31

THE BULGARIAN ARCHITECTURAL COMPLEX AT THE GOLDEN HORN BETWEEN EAST AND WEST. THE ONLY STEEL CHURCH ON THE BALKANS AND IN SOUTH EAST EUROPE

Blagovesta Ivanova*

Abstract

The aim of the paper is to provide a general overview of the Bulgarian St Stephan steel church standing at the Golden Horn in Istanbul, and to reveal its history of over 100 years. The article describes the different stages of construction of the architectural complex during the historical development of Istanbul in the Ottoman Empire. Those stages are generally characterized as wooden, masonry and steel. Herein, we discuss a church complex because there used to be the idea for adjoining buildings of a convent/presbytery and a school to be built. Architectural analogues of 19th century iron structures across the world are presented and compared. Main conclusion is that St Stephan Church, as an architectural edifice, claims its place on the borderline between historicism and the innovative trends of the new form-formation.

Keywords: Bulgarian St Stephan steel church, Golden Horn in Istanbul, Ottoman Empire, Europe, East and West.

The Bulgarian St Stephan steel church, sitting on banks of the Golden Horn in Istanbul in 2018, has its 120-year history. Near the church, there is a masonry structure of the convent built in 1850. The combination of a church and a convent, as well as the non-built school and new convent/presbytery back then in 19th century intended to benefit the Bulgarians, brings forth the notion of an architectural complex to be defined. The two tangible buildings, the church and the convent, built in 1850, have an important role in the history of the Bulgarian people who were ruled by the Ottoman Empire in the 19th century.

The church undergoes three building periods as follows: an adopted wooden structure, a masonry structure, and the final one – steel and cast iron modular structure. The industrial development in Europe and the manufacturing of steel structures in 19th century explains the structural materials utilized in the final stage. The church was inaugurated on September 8th 1898.

On January 5th 2018, it was officially reopened, after a six-year period of restoration. In present days, the steel church stands out as a monument of the architecture of Bulgaria and Turkey. The restoration was funded by the Great Istanbul Municipality. Based on an Agreement for Cultural Co-operation of 1988, the two states maintain reciprocally the churches and mosques.

* Faculty of Architecture at the University of Structural Engineering & Architecture (VSU) "Lyuben Karavelov" – Sofia, (bg_fineart@abv.bg).

I. Introducing the Problem

The Bulgarians who were citizens of the Ottoman Empire and lived in Istanbul were not wealthy people. They worked mainly as craftsmen and did not have much money to spare, but nevertheless, they wanted to build a church to observe their religion, like the rest of all Christian people. In 1839, it was the beginning of the Era of Tanzimât Reforms in the Ottoman Empire when the Christians were granted rights. That is the reason why the piece of land, where the church was to be assembled, was donated by the affluent Bulgarian, Stefan Bogoridi, who held a high position in the Ottoman administration. The idea of building a church with a convent/presbytery and a school attached indicates that it was going to be an architectural complex serving both as a spiritual and educational centre.

Figure 1. Western façade of church after finishing restoration in 2018. Photographer Blagovesta Ivanova.

The construction of the church had three periods in its historical development. The first period started in 1849. It coincided with the beginning of the reforms in the Ottoman Empire known as the Tanzimât Reform Era.

The second period overlapped with the mid-19th century and the aftermath of the Crimean War. This was also the time of struggle for the independence of the Bulgarian Church which was destroyed as an independent institution when Bulgaria was conquered by the Ottoman Empire.

The third period started in 1870s and continued until 1898. In 1878, Bulgaria was liberated but became an independent state only in 1908. The assembling of the church took place during the liberation period and before the Independence.

Studying St Stephan Church, so far, have not explored the question considering its construction as a part of a bigger architectural complex.

II. Previous Researches

Bulgarian explorers Peter Karapetrov[1] and Hristo Buchevarov[2] did the earliest studies of the history of the building of the church in late 19th and early 20th centuries. Their studies introduced the idea that Stefan Bogoridi, the "noble" Bulgarian who held a high official position in the Ottoman Empire and who donated the entire real estate where the church was to be built, pursued his own profit rather than any Bulgarian national interests. It is just for this reason that the names of the two researchers are not known as an early explorers of the church.

Yordan Popgeorgiev made the first scholarly interpretation of the documents found about the church, which are kept in the Bulgarian History Archive of the National Library. In his study, Popgeorgiev gives praise to Stefan Bogoridi's work, whereas he belittles the efforts of the Bulgarian patriot Alexander Exarch who had an undeniable contribution in endorsing the documents defining the status of the church, and who also made a great donation for its construction.[3]

The earliest description and evaluation of the stylistic characteristics of the "iron church" were made by Ivan Stoinov[4] in 1923. According to Stoinov, the

---

[1] Петър Карапетров, "Неколко думи за българската черкова в Цариград", *Мисъл*, София, 1892, г. I, кн. XI – XII, с. 703 – 712; 787 – 800; Петър Карапетров, "Сбирка от статии", *Средец*, София, 1898, с. 15 – 24; П. Черновежд, (Петър Карапетров), "Няколко записки от сегашния век", *Сборник на Министерството на народното просвещение*, София, 1891, кн. VI, с. 379 – 425. [Petar Karapetrov, "A few words about the Bulgarian church in Constantinople", *Missul (Reflection)*, Sofia, 1892, I, vol. XI - XII, pp. 703 - 712; 787-800; Petar Karapetrov, "Collection of articles", *Sredets*, Sofia, 1898, pp. 15-24; P. Chernovejd, (Petar Karapetrov), "A few notes of the present century", *Collection of the Ministry of National Enlightenment,* Sofia, 1891, vol. VI, pp. 379-425].

[2] Христо Бъчеваров, *Спомен за осветяването на българската черкова „Св. Стефан" в Цариград" – Фенер на 8-й септемврий 1898 година.* София, 1898. [Hristo Bachevarov, *Memory about the inauguration of the Bulgarian church "St. Stephan " in Constantinople" - Phanar on 8 of September*, 1898. Sofia, 1898].

[3] Йордан Поп Георгиев, "Принос към историята на българската църква в Цариград", *Архив на Министерството на Народното просвещение*, София, 1911, год. III, кн. 1, с. 20 – 51.[Jordan Pop Georgiev, "Contribution to the History of the Bulgarian Church in Constantinople", *Archives of the Ministry of National Enlightenment*, Sofia, 1911, year III, vol. 1, pp. 20 - 51].

[4] Иван Стойнов, *Българската светиня на Златния Рог и нейното минало. По случай 25*

style of the church is "authentic, Bulgarian," the construction "elegant," "light" and "welcoming". Dimiter Mishev[5], who in 1925 published documents from the Ottoman Archive in Istanbul, had a great contribution to the studies of the church.

In recent decades, historians Zina Markova[6] and Hristo Temelski[7] have studied the problems of the church struggles and the Bulgarian local administration in Constantinople. We have to mention the names of the Turkish scholar-researchers of the church Hasan Kuruyazici and Mete Tapan[8] in whose studies some documents from the Archive of Istanbul have been published.

III. First Period of Construction

The first period of the construction of a Bulgarian church in Constantinople do not entail the construction of a new building. Rather, it shows the remodelling of the wooden outbuilding on the land of Prince Stefan Bogoridi located on the banks of the Golden Horn.

In the Donation Certificate Bogoridi formulated the fundamental arrangements regarding the ownership and the management of the future church. He stipulated that the church, the buildings and the land they would be built on, were to be the property and possession of the Bulgarian people. Bogoridi's covenant was that the church be managed by a board of trustees as the members would constitute Bulgarian residents of Constantinople.[9]

In July 1849, Stefan Bogoridi invited the prominent Constantinople architect Hadji Stefan Kalfa to design the new buildings which were to be erected in his yard. Stefan Kalfa himself had experience in designing the first public buildings of the High Porte. The architect's name was known for the construction of the

---

годишнината на българската желязна черква Свети Стефан в Цариград. София, 1923. [Ivan Stoynov, *The Bulgarian relic of the Golden Horn and its past. On the occasion of the 25th anniversary of St. Stephan's Bulgarian Iron Church in Constantinople.* Sofia, 1923].

[5] Димитър Мишев, Почин за съграждане българска църква и за създаване българска община в Цариград, *Църковен архив. Годишно безплатно приложение към седмичното издание „Църковен вестник"* (г. XXV и XXVI), кн. I и II, София, 1925. [Dimitar Mishev, Initiative for construction of Bulgarian church and for creation a Bulgarian municipality in Tsarigrad (Constantinople), *Church archive. Annual free appendix to the weekly edition of "Church newspaper"* (XXV and XXVI), book I and II, Sofia, 1925].

[6] Зина Маркова, Българският храм в Цариград (Начална история), *Сборник в памет на академик Михаил Димитров*:Изследвания върху Българското възраждане, София, 1974, с. 247 – 259. [Zina Markova, The Bulgarian Temple in Constantinople (Early History), *Collection in Memory of Academician Mihail Dimitrov*: *Researches on the Bulgarian revival*, Sofia, 1974, pp. 247-259].

[7] Христо Темелски, *Българската светиня на Златния рог.* Велико Търново, 1998, 2005, 2010. [Hristo Temelski, *The Bulgarian Relic of the Golden Horn*. Veliko Tarnovo, 1998, 2005, 2010].

[8] Hasan Kuruyazici, Mete Tapan, *Sveti Stefan Bulgar Kilisesi*. Istanbul, 1998, 2010. [Hasan Kuruyazici, Mete Tapan, *Bulgarian Church St Stephan*. Istanbul, 1998, 2010].

[9] Certificate for donation by Stefan Bogoridi, with which he gives his house. *National Library – Bulgarian Historical Archive*, (fund 66), II A 5671 (Greek lang., copy of the original), translation: II A 5670. See and: Dimitar Mishev. Initiative for construction a Bulgarian church and for creation a Bulgarian municipality in Tsarigrad (Constantinople)*, Church archive*, Sofia, 1925, book 1 and 2, pp. 38-40, Sofia, 1898; Jordan Pop Georgiev "Contribution to the History of the Bulgarian Church in Constantinople", *Archives of the Ministry of National Enlightenment*, Sofia, 1911, year III, vol. 1, pp. 41-44.

building in Istanbul which at that time housed the Council of Ministers, the office of the *Vizier*, the Ministry of Foreign Affairs and the Ministry of the Interior, whose construction was finished in March 1844. Within one month, Kalfa designed a big church, a small church and a convent, i.e., a whole architectural complex. This was the time when Stefan Bogoridi's masonry buildings were remodelled into a convent ("papaz evi").[10]

Figure 2. Archive photography of the wooden outbuilding in the yard of Prince Stefan Bogoridi which was transformed into a church. CSA, f. 3К, inv. 1, a. u. 78, sh. 3

Building of the convent took place in the first construction period of the complex. The building was designed as a residence for priests and a shelter for pilgrims on their way to the Holy places. Its architectural plan and stylistic features were borrowed from the imposing secular Renaissance building – *palazzo*, which served as a model for the construction of public buildings in the Balkans. The *palazzo* is *a* building where the distribution of spatial volumes have a central façade and two parallel wings perpendicular to the façade. With the convent, however, the longest is the central section, while the two lateral ones are much foreshortened, so that the idea of a *palazzo* remains invisible from the central façade and the building looks rectilinear. The inner court of the convent is enclosed by the two lateral wings and a Byzantine wall on the back, as the court is divided by a staircase.

[10] *Цариградски вестник*, г. В, 22 октомври 1849, чет 70; Димитър Мишев, *Църковен архив*, кн. 1 и 2, София, 1925, с. 35 – 37. [*Tsarigradski newspaper*, year B, October 22, 1849, № 70; Dimitar Mishev, *Church archive*, vol. 1 and 2, Sofia, 1925, pp. 35-37].

Figure 3. Archive photography of the central façade of the convent. CSA, f. 1459 К, inv. 1, a. u. 99.

IV. Second Construction Period

The second construction period began in early 1859. The Fossati architect brothers, Gaspare and Giuseppe, were invited to design a three-aisled domed basilica with three rounded conches of the apse, and a semi-cylindrical vault of the central nave. The idea of the Fossati brothers was to build an imposing church of great architectural merits and as stately as the other Orthodox churches in Constantinople. The dimensions of the church were the following: length, 28.5 *arşın*, width - 20.9 *arşın*; height of the dome - 21.85 *arşın*. Having in mind that a building *arşın* equalled 0.758 m, the sizes were 21.60 x 15.84 x 16.56 m. Unfortunately, church of such design was not built due to lack of sufficient resources, and the construction was abandoned in 1860.

The Fossati brothers were well known in Russia and in the Ottoman Empire. They were among the artists who created the outlook of 19th-century Saint Petersburg and Istanbul. The Fossati brothers designed and built the Russian Embassy in Constantinople in 1837 – 1849. The two brothers were born in Ticino, Switzerland, and like many other architects and most builders from these regions they worked in Saint Petersburg. Classicism was at the root of Fossati's work in Russia and in Constantinople where they designed churches and public buildings. In the design of private residences in Russia, Gaspare Fossati

experimented with Eclecticism, as he copied the local architectural features and the Anglo-Saxon traditions of romantically landscaped parks. Even in Russia, Gaspare Fossati gained a name as a restorer of buildings.

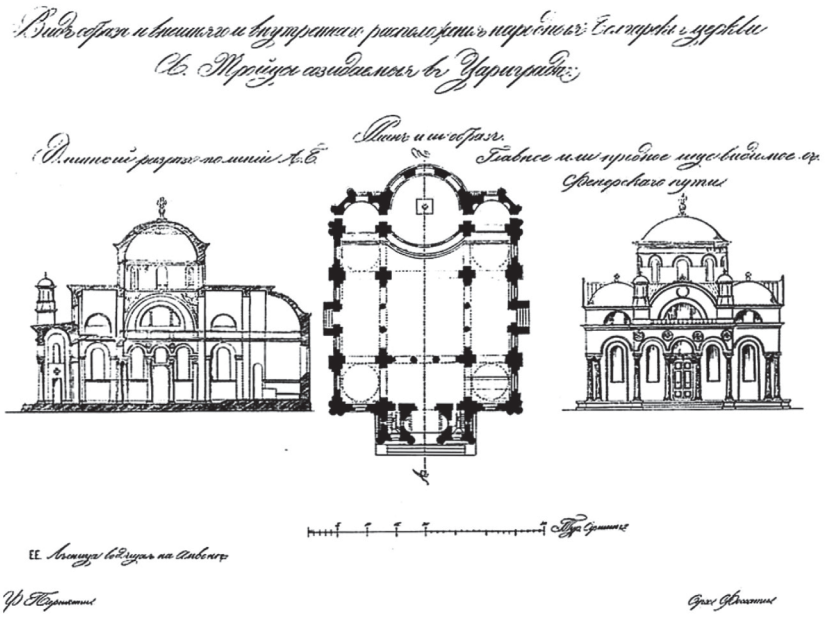


Figure 4. Fossati brothers project for a masonry temple at the Golden Horn of 1859. Longitudinal section, plan and west façade. Preserved at the Historical and Archive Institute at the Bulgarian Patriarchy.

In Constantinople, in addition to the renovation of the Hagia Sophia, Gaspare Fossati and his brother Guiseppe also renovated the Saint Mary Draperis (Sainte Marie Draperis) Roman Catholic Church close to the Russian Embassy. In 1841 Gaspare Fossati became one of the architects of the Sts Peter and Paul Church in the city.

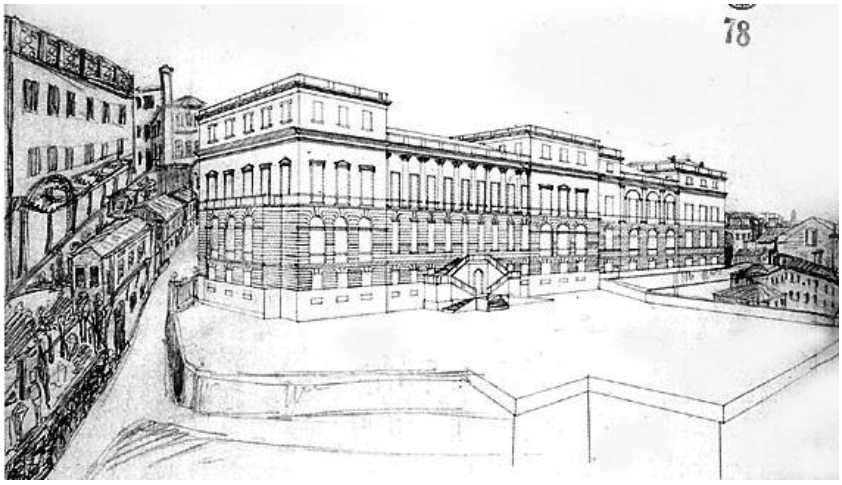


Figure 5. Gaspare Gossati. Russian embassy in Constantinople, perspective, preliminary drawing 1840 - 30 x 42.6 cm. Preserved in Fondo Fossati del Archivio Cantonale di Bellinzona F.F. II/78.

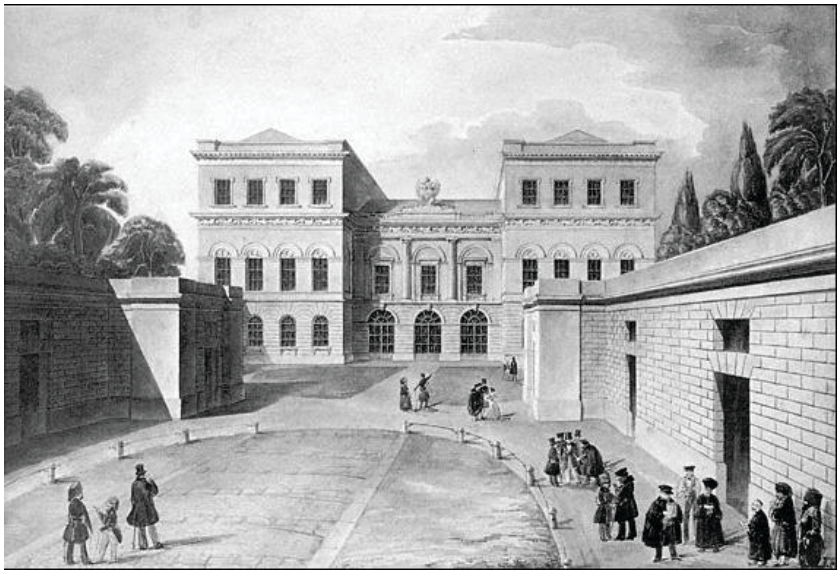


Figure 6. Gaspare Fossati, Project for the Russian Embassy in Constantinople, perspective, circa 1850, watercolor, 31.5 x 45.5 cm. Archivio Cantonale di Bellinzona, ACB 1954 – 1971.

The renovation of the Hagia Sophia in Constantinople in 1846 under the supervision of the Fossati brothers marked their biggest contribution to the world architecture. The brothers restored the structural parts of the church – they straightened the leaning columns of the gallery, consolidated the dome and vaults, uncovered mosaics, as they restored and documented them. They

also did some plastering and painted ornamental inscriptions, as well as added Gothic-style gypsum rosettes on the exterior. After the renovation work performed by the Fossati brothers, the church attained an outlook to the taste of the West European imperial courts and the Sultan's court.[8]

V. Third Period of Construction of the Bulgarian Church and the new Steel Structures

The year 1876 marked the start the third period of construction of the Bulgarian church in Istanbul. That time starts the geodetic survey of the landslide on which the church was to be built, the new reinforce of the terrain, the transformation of ideas from building a masonry church into a church of steel structure and steel cladding. The period was characterized by the use of materials that were still new in late 19th century, such as steel, cast iron and zinc. It was thanks to the use of such materials and due to the main distinctive feature of the structure for which a high-quality steel alloy was used, and also due to the exterior decoration of the church with iron and zinc castings, that the name "The Iron Church" came to be used. The church was designed as a steel structure – to make it lighter onto a landslide area.

The use of steel structures was due to the wider influence of the European architecture in Bulgaria in the 1890s, the stabilization of the country, the inflow of foreign capital, the training of Bulgarian architects abroad, and the commissioning of projects to foreign architects in Bulgaria.

The suggestion to build the St Stephan Church of steel, plus metal sheathing and cast iron decoration came from prominent architects in Istanbul. They were amongst the designers of the docks on the Bosphorus, and of some of the state public and private buildings in the heart of the modern city in the end of 19th century. Amongst them were Italians, French, and Greeks, such as George D. Stampa, Antoine N. Perpignani, Alphonse Cingria, Fangoulis E. Mavrogordato, Alexandre Vallaury, Gabriel Tedeschie. The decision to build the church with materials that were new to those days, e.g. steel and cast iron, was a decision made by the Bulgarian state, of Bulgarian architects who had recently studied in Belgium and Austria-Hungary.[9] The money for the construction was granted from a special fund of the National Bank in Sofia. The fund handling the construction spent nearly 1 million French francs, a rather huge amount at the time.

The iron elements of St Stephan Church were manufactured by the Austrian company Rudolph Philipp Waagner whose main activity is bridge engineering. The weight of the church is greater than the aforementioned churches. The bearing structure and the exterior cladding weighs 360 tons, and the interior cladding – 140 t. The tests conducted to assess the quality of steel used for the building took place in 1894, in Vienna, in the Imperial et Royal d'essayage des materiaux. All tests certify the high quality of steel utilized in the structure.

Today, Waagner-Biro do architectural designs and it is a leading company in modern technologies. Unfortunately, the Bulgarian "Iron Church" sitting on the Golden Horn is not mentioned at all amongst the company's steel projects because they are so many, although St Stephan is the only steel church designed by Rudolph Philipp Waagner firm. Sadly, the company's records do not keep documents or data about the construction of the church.[11]

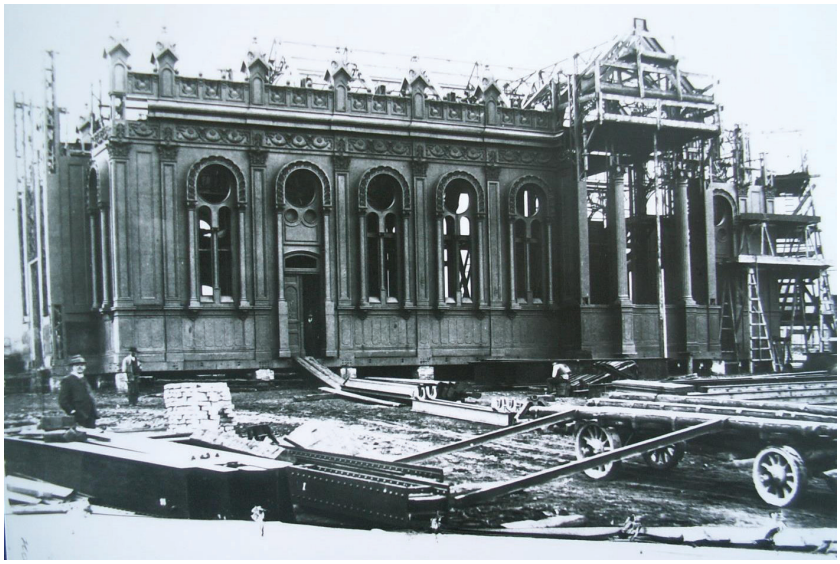


Figure 7. Test-trial installation of the temple St. Stephan in Vienna. Photo inscribed on the back in German: "Design Bureau of Rudolf Philip Vaagner iron and enamel works ". It is preserved in CSA of Bulgaria, f. 166 K, inv. 1, a. u. 120, sh. 20.

The church was designed by Hovsep Aznavur between 1892 and 1894. Aznavur was Armenian. His father was a lawyer and one of the founders of the Masonic lodge in Constantinople. A prospering person, he sent his son to the Armenian Catholic school of Mechitarists on the island of San Lazzaro in Venice. Hovsep Aznavur finished the school and then went on to study in the Academy of Fine Arts in Rome. In Constantinople, he built the famous steel passage on the İstikląl Avenue, still bearing his name. The passage was done in an Art Nouveau, also known as Secession style, and was probably created after the St Stephan Church. Proof of the claim are the distinct stylistic features of the building in terms of the aesthetics of historicism while cohesively integrating various architectural styles and artistic trends. In the outlining of the building Aznavur followed the principles of Baroque. The windows suggest of Neo-Byzantinism style. In respect of the artistic details on the façades, Aznavur adhered to the trends of Neoclassicism, as he appeared a follower of the famous French architect Charles Garnier.[12] The

[11] Natalia Teteriatnikov, *Mosaics of Hagia Sophia, Istanbul: The Fossati Restoration and the Work of the Bizantine Institute. Dumbarton Oaks Research Library and Collection*, Washington, D. C. 1998, pp. 8-30.
[12] CSA, f. 166 K, inv. 1, a.u. 119, sh. 83, 82, 85, a. u. 121, sh. 135 b; f. 246 K, inv. 1, a. u. 43, sh. 35, 65, a. u. 69, sh. 41 b.

architectural plan of the church is a Latin cross and its stylistic features followed the traditions of the West-European church architecture. Stained glass windows were planned to be used for the decoration of the church and for its interior illumination, which, however, were not mounted due to high cost.

The iconostasis was commissioned in Russia. It was designed by Hovsep Aznavur.[13] The iconostasis was made from wood by the Russian iconostasis master Akhapkin in 1897. Another iconostasis master Kondratiev who was in Istanbul during that time, too, offered opinions concerning the composition of the work.[14] The form-formation was related to the architecture of Neoclassicism. The icons were made by a Russian artists from Moscow, known as A[lexander]. Lebedev, who has not yet been identified.

VI. Similar Churches in 19th century

Similar churches are preserved to present day in Australia (a church manufactured in 1854 in Bristol, Britain); in Latvia, between Daugavpils and Novoye Stroyenie (made in 1866, in Saint Petersburg, transferred in the town of Jersika), in Manilla, the Philippines, in Tacna in Peru, in Arica in Chile and in Lower California in Mexico (both made by the bureau of Gustave Eiffel *circa* 1875, and 1884 - 1897). Saint Barbara church in Crusnes, France, designed in 1939 is the latest example of iron church. There was a great number of churches made of iron in the 19th century, so that the emergence of the St Stephan was not a unique case in the development of either architecture or industry. However, this was the only iron church on the Balkans and in South-East Europe.

Figure 8. The temple Holy Transformation of the Lord in Jersika, Latvia.

[13] Correspondence of the author with Wagner-Biro since 2005. Personal archive, Blagovesta Ivanova.
[14] Central State Archive of Bulgaria (CSA), fund (f.) 321 K, inventory (inv.) 1, archive unit (a.u.) 473, sheet (sh.) 17-18. Protocol № 5 of the Building Commission meeting of November 18, 1895 (French lang.), CSA, f. 166 K, inv. 1, a.u. 121, sheet (sh.) 59. The dimensions are indicated in the copy of the Contract with Akhapkin of July 1, 1896.]

Figure 9. Western façade of the San Sebastian church in Manila, Philippines. <https: //weddinglyyours.files.wordpress.

Figure 10. Southern façade of the church San Marcos in Arica, Chile. Archive of the author.

Figure 11. Western façade of the „Iglesia de la Nuestra Señora de las Mercedes" in Grecia, Costa Rica. http://www.blackincostarica.com/2016/03/our-new-house-in-grecia-costa-rica.html

Assembling churches made of cast iron and steel appeared a natural process due to the technological development and the mastering of new industrial technologies. Such churches were erected in places where the terrain did not allow for the construction of heavy-weight buildings or when conditions for development were absent. Other circumstances were such that only the functional aspect of architecture was deemed paramount, e.g. military garrisons, development of ore mines, development of new technologies in distant places, relocation of large Christian communities or missionary activity. In this regard, the aesthetics of the industrial architecture and the latest developments in that field determined the simple design of the church buildings.

Another important characteristic of the prefabricated steel architecture is the opportunity to dismantle, carry and re-assemble the building in a new location, according to needs. In other words, it may be viewed as an architecture that is not closely connected with the historical memory of the concrete place. Such architecture is of purely practical application – the elements are prefabricated and can be quickly assembled *in situ*. Such examples are the pavilions for the World Exhibitions in the late 19th and early 20th century. In the case of the iron churches, the lack of will to leave a lasting historical mark is shown. However, the absence of aesthetic impact of the architectural style and the domineering of function are demonstrated.

In 1840, in Loch Sunart in Scotland, a floating iron church worth 1,400 pounds which held 750 people was anchored onto a wooden platform. In 1866 a garrison church for the imperial troops was built in Russia between the towns Dinaburg and Novoye Stroyenie. The church was very small, 13 x 9 m, and was clad in cast iron and iron sheets. The building was located in one corner of the garrison and was too small to accommodate all worshippers. In 1904 the church was moved in Tsar-grad, 50 km from Daugavpils in Latvia, present-day Jersika, and in its place the Ss. Boris and Gleb Cathedral was built in 1905. The cathedral is now located along the road to the city.

The St John Chrysostom Church was built in Kiev in the same period, between1867 – 1871, and it was claimed to be the first assembling-type building made with iron in the Russian Empire. Separate elements of the structure were manufactured in Saint Petersburg by applying a technology of engineer R. Nikels and following the design of architect Nikolay Egorovich Jurgens. In 1934 the church was demolished due to corrosion.

In the 1860s Gustave Eiffel designed churches of metal structures, such as the Church of Notre Dame des Champs, the Church of Saint Joseph, both in Paris, the Church of San Marcos in Arica, Chile, (1875), the Cathedral of San Pedro de Tacna, Peru, the Church of Santa Barbara in Santa Rosalia, Mexico, (1884 - 1897), the San Sebastian Church in Manila, Philippines (1891). Gustave Eiffel's iron structures were meant for Europe, Asia, Africa, Latin America and Oceania. Along with the churches of cast iron and steel, Eiffel's bureau designed synagogues, galleries, markets, Customs office-buildings, some of which for France. Eiffel also designed Budapest Western railway station in Hungary, and a railway station and locomotive depot in France.

The artistic features of the San Sebastian Church in Manila articulate the way the specific properties of metal as a structural material were overcome. In the church, steel is used for the walls and their decoration – imitating stone, as the combination of metal and marble emphasizes the effect. This artistic peculiarity also applies to the Bulgarian church in Istanbul, thus making the two monuments the closest of analogues.

Figure 12. Central and northern façade of the Santa Barbara Church in Santa Rosalia, Mexico. <http // Santa Rosalía Photos Santa Rosalia, Baja California Sur, Mexico.html> (06/07/2005)

The closest analogue to St Stephan church in terms of the history of construction which also shows great importance of "being invaluable per se" and the significance of the construction site is the church Iglesia de la Nuestra Señora de las Mercedes in Grecia, Costa Rica.

St Matthew's Church in Cape Town, the Republic of South Africa, built in 1879 – 1883, was made by using chequered flat steel plates. The church was designed by architect John Norton of London. The cost of the building was 13,000 pounds. The church was dismantled in 1960 due to the expensive upkeep it demanded. An iron church was built in 1896 in Kalgoorlie, Western Australia, to be rebuilt as a masonry structure in 1902.

From a point of view of the aesthetical appearance of these churches, the prefabricated elements used are accentuated in the interior spaces, as they equally have a structural and an aesthetic role. In the 19th century, the church architecture of prefabricated components was placed in the mainstream of historicism and did not differ from any other brick building in terms of artistic creativeness. The structures are not entirely hidden, though. Their specific characteristics and main elements become an essential part of the overall artistic appearance of the churches.[15]

Figure 13. St Stephan church after restoration in 2018. Photographer Tsvetan Tomchev.

[15] Immo Boyken, Vorgefertigte Eisenkirchen, *Jahrbuch des Sonderforschungsbereiches 315, Erhalten historisch bedeutsamer Bauwerke, 1988*, Ernst& und Sohn, Berlin, 1989, pp. 191 – 207. [Immo Boyken, Prefabricated iron churches, *Yearbook of the Collaborative Research Center 315, Preserved historically significant buildings*, 1988, Ernst & and son, Berlin, 1989, p. 191 - 207].

VII. Conclusion - the Complex on the Borderline between Historicism and New Form-formation in Architecture

The manufacturing of the steel elements for St Stephan by the famous Vienna-based company Rudolph Philipp Waagner in the 1890s, coincided with the first steps in the development of steel architecture in Europe. The church was on the borderline between historicism and the innovative tendencies of the new form-formation and the ensuing new use of metal. From this standpoint, the study explores the place of the church viewed within the context of the development of architectural structures and form-formation in architecture. From a structural and artistic point of view, the St Stephan Church integrates all the achievements of the European architecture from the very first use of cast-iron structures in the 18th century till the representation of the aesthetic properties of the material. In this case, steel was given the merit as a structural material but it was used as a traditional one like stone, gypsum and marble. This came as a result of attempting to hide the structure behind metal walls which was done in the spirit of historicism and decorated in the style of Classicism.

The steel church was planned as part of a larger complex also including a new presbytery (convent) and a school, as it was meant to become a spiritual and educational centre for the Bulgarians living in the capital of the Ottoman Empire. The presbytery was, also, designed by Hovsep Aznavur, in the late 19th century, with Neoclassical bearing walls. Unfortunately, the school and the new presbytery were not built due to lack of resources.

The creation of St Stephan coincided with the end of the period of historicism in architecture when steel was a material *per se,* when its advantages were highlighted in combination with glass, and when new lighter and transparent forms appeared, as they heralded the advent of Modernism. Adopting the new mastery in manufacturing and assembling of steel structures, as well as employing a new form-formation after the advent of metals as new building materials, e.g. The Crystal Palace in London, reveals that the structural solutions for and the artistic approach to building St Stephan church is an accomplished phase of their utilization.

The issue with the terrain perpetuated as the most complex one over the years, for the land borders the waters of the Golden Horn. It was further aggravated by other problems that appeared over time. When considering the fact that weather, metal and water are in a direct clash, we cannot underestimate the very fact that these circumstances have their impact and may cause certain damage to the condition of the church. The church sitting next to water, the intensive evaporation, the high humidity, and the coating of the metal body with airborne dirt – all these are crucial factors causing corrosion.

The recently completed refurbishment may have helped greatly to currently tackle the detrimental weathering of the building, as the skilfully done restoration has undeniably created a whole new appearance of the church. This major restoration took place from 2011 to 2017. The problem with the church foundations was tackled and solved. The terrain underneath and around the

church was consolidated. All corroded structural elements were replaced. The rust from the entire body was removed. All interior gold-plated details were recovered, as well.

Today, the interstate status adopted by Bulgaria and Turkey commits both sides in a mutual process to look after the preservation of the monument, as the church itself is second to none in the Balkan region and Southern Europe.

Öz

Doğu ve Batı Arasında Yer Alan Haliç'te Bir Bulgar, Mimari Yerleşkesi. Balkanlar ve Güney-Doğu Avrupada'ki Tek Demir Kilise

Bu çalışmanın amacı İstanbul, Haliç'te bulunan Bulgar St. Stephan Demir Kilisesi'ne ve 120 yıllık tarihine genel bir bakış sunmaktır. Makale, Osmanlı İmparatorluğu ve İstanbul'un tarihsel gelişimi içinde bu mimari kompleksin farklı yapım aşamalarını tanıtmaktadır. Bu aşamalar genellikle ahşap, taş ve demir ile özdeşleşmiştir. Bir kilise kompleksinden söz etmekteyiz zira farklı aşamaların gelişimi esnasında bitişik yapı olarak bir manastır ve okula ait fikirler mevcuttur. 19. yüzyılda dünyadaki demir yapıların mimari örnekleri incelenmiş ve karşılaştırılmıştır. Sonuç olarak mimari bir yapı olan St. Stephan Kilisesi tarihsellik ve yeni biçim oluşturma akımı arasındaki sınırda yerini almıştır.

Anahtar Kelimeler: Bulgar St. Stephan Demir Kilisesi, İstanbul'da Haliç, Osmanlı İmparatorluğu, Avrupa, Doğu ve Batı.

BIBLIOGRAPHY

Archival

Archivio Cantonale di Bellinzona, ACB 1954 – 1971

ЦДА, Central State Archive, Bulgaria

Central State Archive (CSA), fund (f.) 321 K, inventory (inv.) 1, archive unit (a.u.) 473, sheet (sh.) 17-18. Protocol № 5 of the Building Commission meeting of November 18, 1895 (French lang.).

CSA, f. 166 K, inv. 1, a.u. 121, sheet (sh.) 59.

CSA, f. 166 K, inv. 1, a.u. 119, sh. 83, 82, 85,

CSA, f. 166 K, inv. 1, a. u. 121, sh. 135 b;

CSA, f. 246 K, inv. 1, a. u. 43, sh. 35, 65,

CSA, f. 246 K, inv. 1, a. u. 69, sh. 41 b.

CSA, f. 321 K, inv. 1, a.u. 473, sh. 19-20. Protocol № 6 of a meeting of the Building Commission of 18 November 1895.

CSA, f. 321 K, inv. 1, a. u. 473, sh. 143 – 144. Certificate for the establishment of the quality of steel for the Bulgarian building made in 1894 in Vienna. (French language)

National Library – Bulgarian Historical Archive, (fund 66), II A 5671 (grec lang., copy of the original), translation in bulg.: II A 5670.

Books and articles

Boyken, I., Vorgefertigte Eisenkirchen, *Jahrbuch des Sonderforschungsbereiches 315, Erhalten historisch bedeutsamer Bauwerke, 1988*, Ernst& und Sohn, Berlin, 1989, pp. 191 – 207.

Бъчеваров, Хр., *Спомен за осветяването на българската черкова „Св. Стефан" в Цариград" – Фенер на 8-й септември 1898 година.* София, 1898. [Bachevarov, H. *Memory about the inauguration of the Bulgarian church „St. Stephan „ in Constantinople" - Phanar on 8 of September*, 1898. Sofia].

Иванова, Бл., Тенденции в украсата на българската църква в Истанбул, *Изкуствоведски четения*, 2014, с. 345-355. [Ivanova, Bl., Trends in the Decoration of the Bulgarian Church in Istanbul, *Art Reading*s].

Карапетров, П., "Неколко думи за българската черкова в Цариград", *Мисъл*, София, 1892. г. I, кн. XI – XII, с. 703 – 712; 787 – 800. [Karapetrov, P., „A few words about the Bulgarian church in Constantinople", *Missul (Reflection)*, Sofia].

Карапетров, П., "Сбирка от статии", Средец, София, 1898, с. 15 – 24 [Karapetrov, P., „Collection of articles", *Sredets*, Sofia].

Kuruyazici, H., Tapan, M., *Sveti Stefan Bulgar Kilisesi*, YKY, Istanbul, 1998, 2010.

Маркова, З., Българският храм в Цариград (Начална история), *Сборник в памет на академик Михаил Димитров*, София, 1974, с. 247 – 259. [Markova, Z., The Bulgarian Temple in Constantinople (Early History), *Collection in Memory of Academician Mihail Dimitrov*: *Researches on the Bulgarian revival*, Sofia].

Мишев, Д., Почин за съграждане българска църква и за създаване българска община в Цариград, *Църковен архив. Годишно безплатно приложение към седмичното издание „Църковен вестник"* (г. XXV и XXVI на същия), кн. I и II, София, 1925. [Mishev, D., Initiative for construction of Bulgarian church and for creation a Bulgarian municipality in Tsarigrad, *Church archive. Annual free appendix to the weekly edition of "Church newspaper"* (XXV and XXVI), book I - II, Sofia].

Поп Георгиев, Й., "Принос към историята на българската църква в Цариград", *Архив на Министерството на Народното просвещение*, София, 1911, год. III, кн. 1, с. 20 – 51. [Pop Georgiev, J., „Contribution to the History of the Bulgarian Church in Constantinople", *Archives of the Ministry of National Enlightenment*, Sofia].

Стойнов, Ив., *Българската светиня на Златния Рог и нейното минало. По случай 25 годишнината на българската желязна черква Свети Стефан в Цариград*. София, 1923. [Stoynov, I., *The Bulgarian relic of the Golden Horn and its past. On the occasion of the 25th anniversary of St. Stephan's Bulgarian Iron Church in Constantinople.* Sofia].

Темелски, Хр., *Българската светиня на Златния рог.* Велико Търново, 1998, 2005, 2010. [Temelski, H., *The Bulgarian Relic of the Golden Horn*. Veliko Tarnovo].

Teteriatnikov, N., *Mosaics of Hagia Sophia, Istanbul: The Fossati Restoration and the Work of the Bizantine Institute. Dumbarton Oaks Research Library and Collection*, Washington, D. C. 1998.

Цариградски вестник, г. В, 22 октомври 1849, чет 70. [*Tsarigradski newspaper*, year B, October].

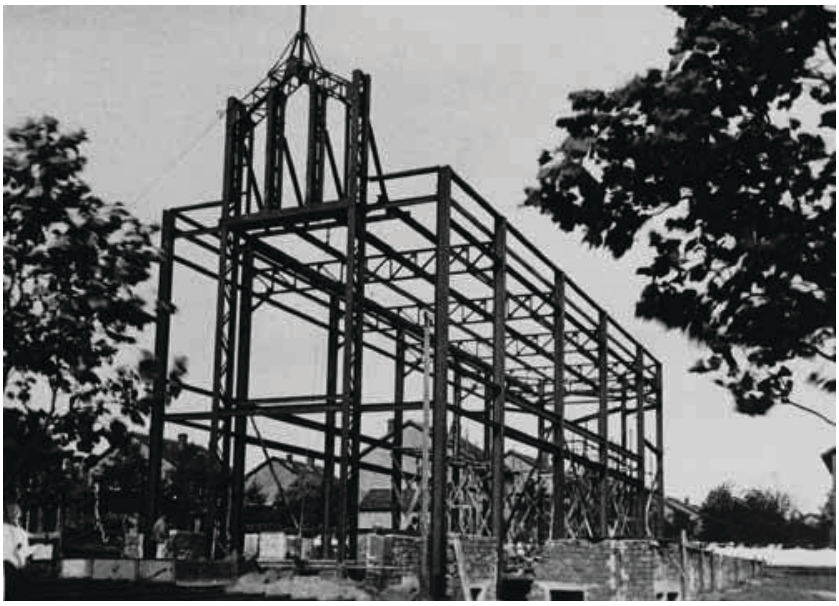
Черновежд, П., (Карапетров, П.), "Няколко записки от сегашния век", *Сборник на Министерството на народното просвещение*, София, 1891, кн. VI, с. 379 – 425. [Chernovejd, P., (Karapetrov, P.), „A few notes of the present century", *Collection of the Ministry of National Enlightenment*, Sofia].

Appendix 1. The church „St Sophia" with an old buildings on the left and right and with houses in front of it. Lithograph no. 6 from the album of the Fossati brothers, London, 1852.

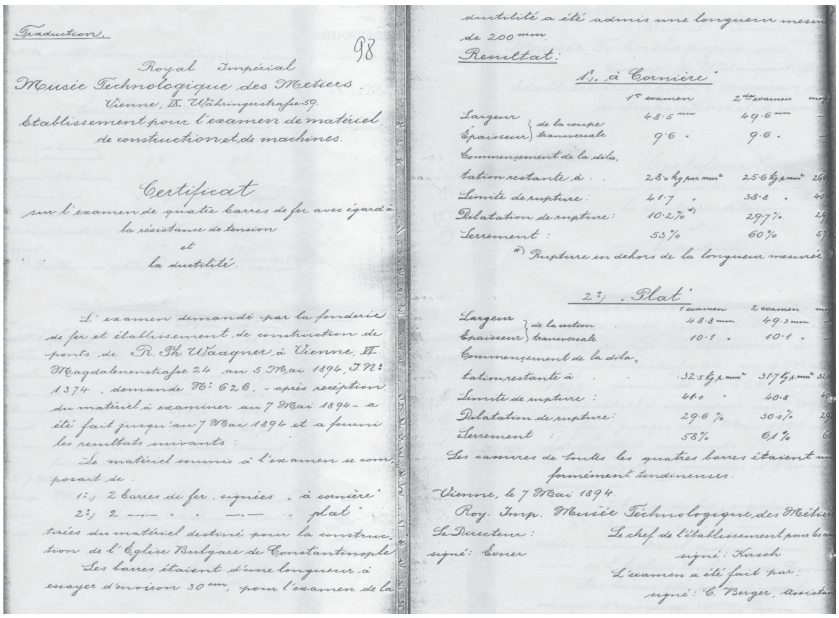
Appendix 2. The building with clock (horloge) erected by Gaspar Fossati in 1853 next to the the church „St Sophia" in Istanbul. Photographer Blagovesta Ivanova.

Appendix 3. State of the façade of Saint Barbara church in Crusnes, France, before the restoration. http://www.culture.gouv.fr/culture/dp/patrimoine-xx/pages/res_ste_barbe.htm

Appendix 4. Steel structure of Saint Barbara church in Crusnes, France, circa 1938. http://www2.culture.gouv.fr/culture/dp/patrimoine-xx/img/res_chan/crusne1grand.jpg



Appendix 5. Certificate for the establishment of the quality of steel for the Bulgarian building made in 1894 in Vienna. CSA, f. 166 К, inv. 1, a. u.120, sh. 118 (French language).



Traduction.

98

Royal Impérial
Musée Technologique des Metiers.
Vienne, IX. Währingerstrasse 59.
Etablissement pour l'examen de matériel
de constructions et de machines.

Certificat
sur l'examen de qualité barres de fer avec égard à
la résistance de tension
et
la ductilité.

L'examen demandé par la fonderie
de fer et établissement de construction de
ponts de R. Ph. Waagner à Vienne, III.
Magdalenenstrasse 24 sur 5 Mai 1894, 3792
1374, demande No: 626, - après réception
du matériel à examiner au 7 Mai 1894 - a
été fait jusqu'au 7 Mai 1894 et a fourni
les resultats suivants:

Le matériel soumis à l'examen se com-
posait de:
1.) 2 barres de fer signées „à cornière"
2.) 2 — „ „ — „ plat"
traées du matériel destiné pour la construc-
tion de l'Eglise Bulgare de Constantinople.
Les barres étaient d'une longueur à
usager d'environ 30 cm, pour l'examen de la
ductilité a été admis une longueur mesu
de 200 mm

Resultat:

1.) à Cornière"

		1er examen	2me examen
Largeur	de la coupe transversale	48·5 mm	49·6 mm
Epaisseur		9·6 „	9·6 „
Commencement de la dila-tation restante à		28·0 Kg par mm²	25·6 Kg par mm²
Limite de rupture		41·7 „	38·3 „
Dilatation de rupture		10·2 % *)	29·7 %
Serrement		53 %	60 %

*) Rupture en dehors de la longueur mesurée

2.) „Plat"

		1 examen	2 examen
Largeur	de la section transversale	48·8 mm	49·3 mm
Epaisseur		10·1 „	10·1 „
Commencement de la dila-tation restante à		32·5 Kg par mm²	31·7 Kg par mm²
Limite de rupture		41·0 „	40·8 „
Dilatation de rupture		29·6 %	30·0 %
Serrement		58 %	61 %

Les cassures de toutes les quatres barres étaient
fermement tendineuses.

Vienne, le 7 Mai 1894.
Roy. Imp. Musée Technologique des Métier
Le Directeur: Le chef de l'établissement pour le
signé: Exner signé: Kirsch
L'examen a été fait par:
signé: C. Berger, assistan