

ANCIENT SOFIA

CULTURAL HERITAGE RESTORED,
RENOVATED AND PROTECTED

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Front page: Excavated skeleton
from the St. Sofia Church.

PHOTO: NIKU

Ancient Sofia
Cultural Heritage Restored, Renovated and Protected

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Norwegian Institute for Cultural Heritage Research

2017

A special thanks to Nadezhda Kirova, Director of the
Sofia History Museum

Production: Fladby as



NIKU

Norwegian Institute for Cultural Heritage Research

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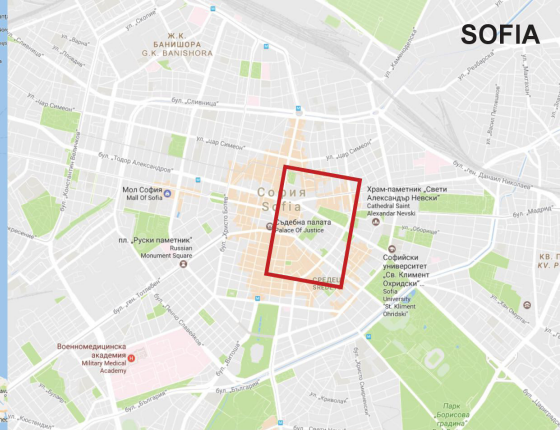
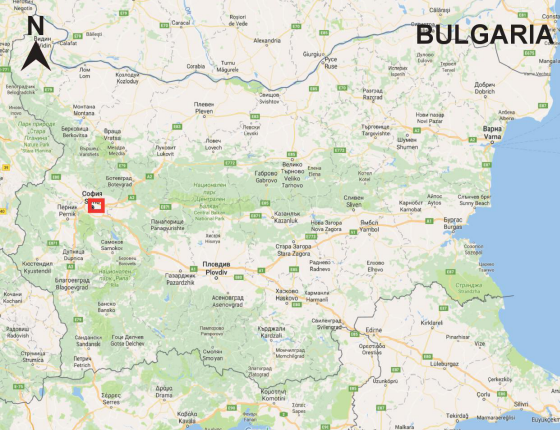


PROJECT BACKGROUND

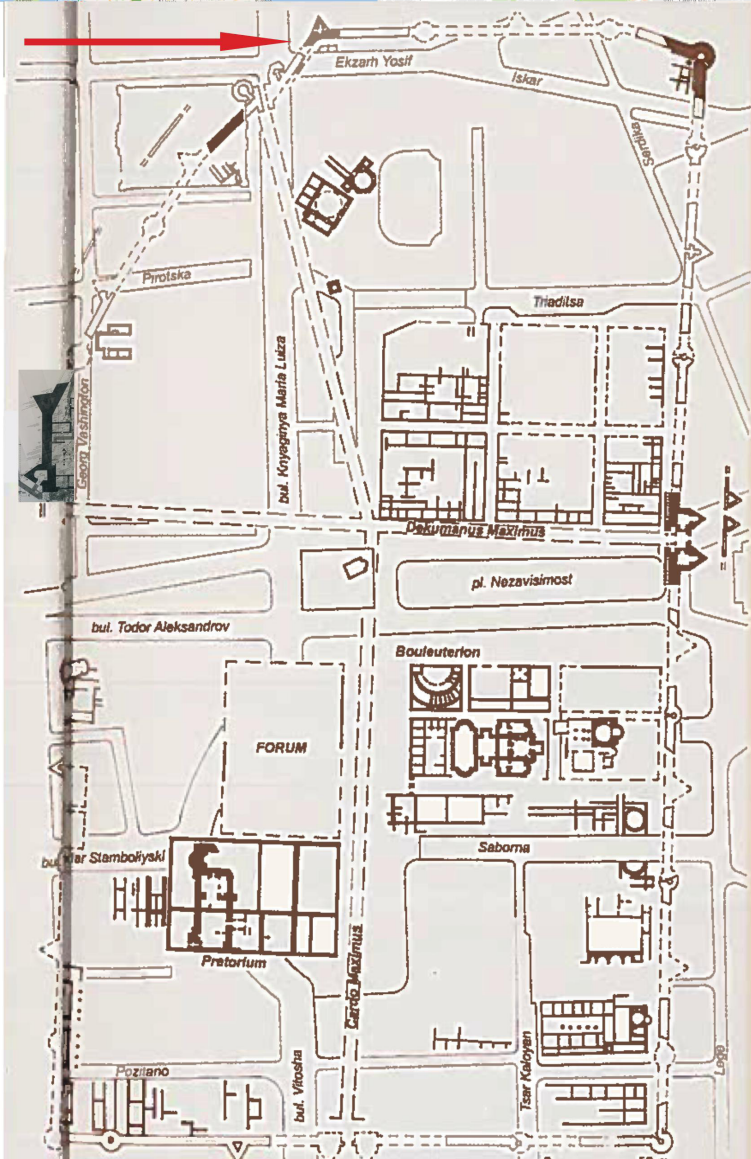
The EEA Norway Grants-project *An Ancient History of Sofia, Cultural Heritage Accessible for All*, aims to restore, renovate and protect cultural heritage in Sofia, the capital of Bulgaria. In general, the EEA Grants and Norway Grants strive to reduce economic and social disparities and to strengthen bilateral relations with EU countries in Central and Southern Europe and the Baltics. Specifically, this project aims to present the heritage of the capital city of Bulgaria within the European context of cultural exchange and cultural diversity. This entails including members of the Roma people in the work force. Sofia is one of the most ancient Eu-

ropean capital cities with a rich historical and cultural heritage. Three buildings of cultural heritage value will be restored and preserved for future generations: The St. Sofia Basilica and the Triangular Tower and Western Gate of Serdica. The beneficiaries are the civil society, researchers, students, tourists, cultural organizations and the Non-Governmental Organizations. The cooperation with Norway will strengthen the bilateral relations. The Norwegian partner, Norwegian Institute for Cultural Heritage Research (NIKU), contributes to the project implementation sharing their knowledge in the field of restoration and *in situ* preservation.

Previous page: Front gate at the St. Sofia Church.



The Triangular Tower



SERDICA

The Western Gate

St. Sofia Basilica

A small inset map of St. Sofia Basilica, showing its location within the Serdica site. A red arrow points from the text to the inset map.

SERDICA

ANCIENT SOFIA

Bulgaria's capital Sofia is an ancient city with rich historical and cultural heritage. Since its infancy as a Thracian settlement, the territory of modern Sofia has been a center of activity. The Thracians called the settlement *Serdica*, and around 29 BC it was conquered by the Romans. Eventually Serdica developed into its region's administrative center, and expanded, as protective walls, buildings of both administrative and cultic functions, and an amphitheater were built.

Today a great number of these structures can be admired as reconstructed ruins. The Metro station "Serdika II" and the Serdica Archaeological Complex right outside the station

is an open air museum. The Roman ruins exhibited *in situ* include part of Serdica's main street *Decumanus Maximus*, a residence and private homes, as well as colorful floor mosaics. The Middle Ages are here represented with a church and an inn.

Elsewhere in the city one can, amongst many other ancient historic attractions, find the Church of St. George, considered being the oldest standing building in Sofia dating back to the 4th century AD. And of course, the St. Sofia Basilica and the Western Gate and Triangular Tower of Serdica, respectively is and will be, open to the public.

ST. SOFIA BASILICA



The St. Sofia Basilica, or *Sveta Sofia*, is one of the oldest churches in Sofia. It was erected on a hilltop in the necropolis of the ancient Roman town Serdica. The basic cross design of the present basilica, with its two east towers and one tower-cupola was built during the reign of Byzantine Emperor Justinian I in the middle of the 6th century, and is believed to be the fifth structure to be constructed on the site. In the 2nd century, the hilltop was the location of a Roman theatre. Over the next few centuries, several other churches and places of worship were constructed on the site, only to be destroyed by invading forces such as the Goths and the Huns. By the end of the First Bulgarian Empire (11th century) the church had fallen into disrepair and was completely restored during the Byzantine rule. During the Second Bulgarian Empire (spanning 12th to 14th centuries), the structure acquired the status of a metropolitan church. In the 14th century, the basilica gave its name to the city. In the 16th century, during Ottoman rule, the church was converted into a mosque under the name *Siyaush Pasha*. The original 12th

century frescoes were destroyed and minarets were added. Two earthquakes, in 1818 and 1858, destroyed one of the minarets, and the mosque was abandoned. Restoration work was begun after 1900, and the basilica was again open to visitors in 1998.

Unruly seismic activity

During its long life, the basilica has suffered greatly from an unknown number of earthquakes. The effects from the quakes are a serious problem, not only in the many cracks in the walls, arches and domes, but at times having crushed whole parts of the construction. A recent 2012 quake reminds us that the church is still in danger. To prevent future earthquakes from destroying the basilica further, it became necessary to secure it. This project involves the implementation of two structural retrofits that will significantly strengthen and improve the seismic resistance of the building, as well as waterproofing the basement stone walls.

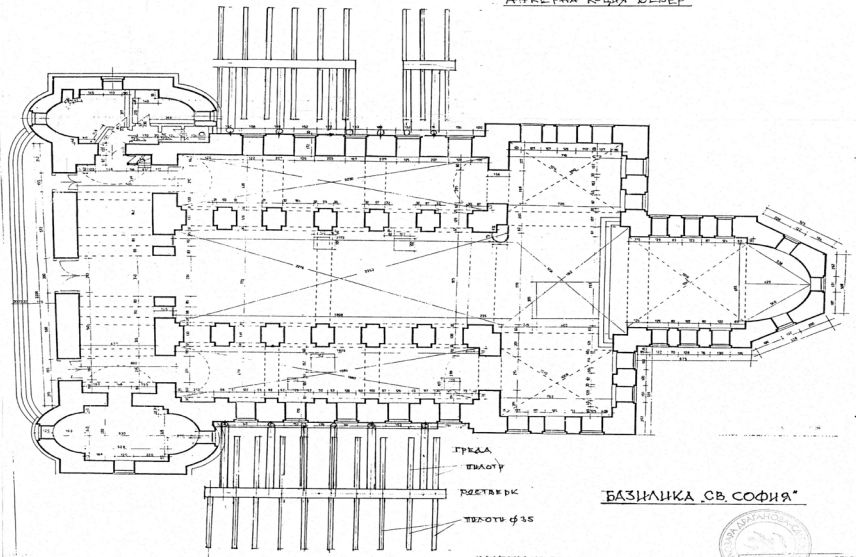


10 The St. Sofia Basilica in 1915. PHOTO: WIKIMEDIA COMMONS / OPEN SOURCE





ДЪКЕРНА К-ЦИЯ СЕВЕР





Previous page top: The construction of the structural retrofits on the north side of the basilica.

Previous page bottom: Floor plan of the basilica.

This page: St. Sofia south wall.

PHOTOS / ILLUSTRATION: SOFIA HISTORY MUSEUM / NIKU



Details of a repeatedly reconstructed wall on the south side of the St. Sofia Basilica.
PHOTO: NIKU



Indoor wall strengthening implementations in the St. Sofia Basilica.
PHOTO: NIKU

Excavation

The ground under and around the St. Sofia Basilica is filled with ruins of tombs and earlier building foundations. Some of the oldest tombs are from the early 200's AD. In order to enhance the basilica's seismic performance, trenches had to be opened along the north and south wall, and any traces of the past would have to be carefully excavated. The excavations led to new and exciting finds and discoveries in addition to the rediscovery of some previously known tombs.

The north side

Along the north wall of the basilica, the roofs of two brick tombs were uncovered. The rectangular tombs with semi-cylindrical arched vaults are of a kind that has been well documented from previous excavations in the necropolis. Also, part of a stone sarcophagus and a few coins were found.





Top: Coins found during excavation.

Bottom: Half-excavated tombs on the north side of the St. Sofia Basilica.

The south side

Along the south wall of the basilica structures like building foundations, tomb walls and

even skeletons were uncovered. The skeletons were heavily entangled in the roots of trees that belonged to the park right outside the basilica's walls.





Previous page: Excavation of skeleton and foundation with unknown function.

This page: Partly excavated skeleton.

PHOTO: NIKU



Top and bottom: Partly excavated tomb walls on the south side of the basilica.

PHOTO: SOFIA HISTORY MUSEUM / NIKU



The south side of the St. Sofia basilica during excavation.

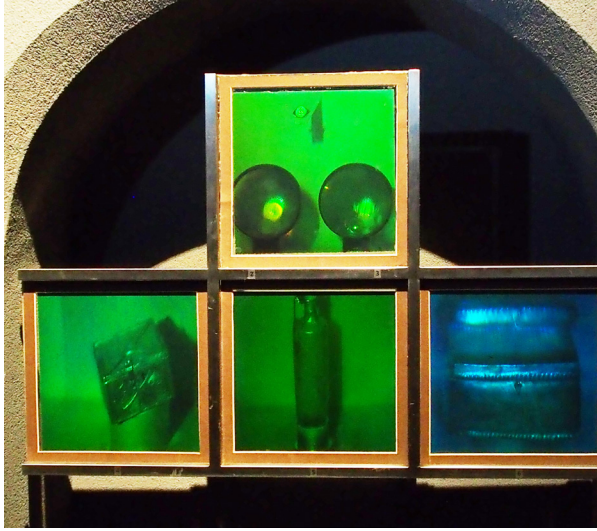
PHOTO: NIKU

The archaeological level

Since 1910, excavations under and around the basilica have been systematically undertaken. Numerous tombs of different type and construction, dating from the 3rd to the beginning of the 5th century AD, as well as stone sarcophagi, mosaic floors and remains of several earlier Christian churches have been discovered. Today this is all preserved and on display on the archaeological

level, 3 to 6 meters beneath the church floor. On display under ground in front of the basilica is the only tomb in Bulgaria with the deceased's name – Honorius – inscribed on the inside. Unfortunately, the excavations under the basilica have made the building even less resistant to seismic activity, impairing the construction's carrying capacity, necessitating the seismic safeguarding now carried out.





Top: Finds on display. Bottom: A peek inside a tomb. PHOTO: NIKU 23

THE WESTERN GATE OF SERDICA



The archaeological site the Western Gate of Serdica is situated between George Washington street, Boulevard Todor Alexandrov, Pirotska street and the Cathedral of Saint Joseph, and was first excavated in the period 1974–1980 and then again 2011–2016. The excavations have uncovered the western gate of the city: a triangular tower and a pentagonal tower with the curtain wall in between.

Both towers are late roman additions; originally the *Decumanus*

Maximus housed the city gate. During the recent years of excavation, a younger gate, possibly from the 400's AD, was discovered in the pentagonal tower.

In connection to the fortification, both Late Roman and Medieval layers with main roads and some living quarters were excavated. Among the Roman layers were found parts of a polychrome floor mosaic.



The Western Gate of Serdica.

ILLUSTRATION: SOFIA HISTORY MUSEUM





Excavations

The Western Gate complex was in a very unsatisfactory condition before the start-up of the project. The whole complex was in need of restoration. Many of the stone pavings and walls were displaced or demolished and the constructions had lost a lot of its mortar. During excavation of overgrown areas, loose bricks and slabs were put back in place, and the whole complex was sprayed with herbicides to avert future overgrowth. The excavations also helped elaborate and nuance the impression and knowledge of Serdica's Western Gate.

More importantly, in addition to the excavation and preservation, the site would be safeguarded and turned into an open air *in situ*-museum. The George Washington street above the site to the east needed structural support, and the exposed wall section under it displaying several hundred years of soil stratigraphy needed protection.

Loose stone from the ancient constructions were reused in the following reconstructions of the towers. Entire collapsed modern building blocks were removed from the site.



Field worker during excavation

PHOTO: NIKU



An unearthed former hidden layer of brick tiles in the triangular tower.

PHOTO: NIKU





Both pages: Stone with recognisable architectural elements were sorted from the generic building blocks.

PHOTO: NIKU

Safeguarding wall section

The archaeological investigations were mostly over by July 2016, though an extra emergency rescue investigation had been necessitated because parts of the George Washington street at the south-eastern corner of the plot had fallen down. This demonstrated how dangerous and unprotected the exposed section was, so measurements to secure the section and thus protect both the site and the street were carried out.

The best method was piling along the wall to stabilize the street. To enable the piling, it was necessary first to excavate a minor area just beneath the exposed section. Then piles were

driven down parallel to the wall, and plates were put between these to ensure a safe transition from the road to the site.

Behind these plates, excavation soil was used as back fill, to ensure that the adjoining archaeological deposits were not unnecessarily exposed to oxygen. Oxygen is a degradation factor on archaeological remains. For that reason, and in order to protect and preserve some of the archaeology for future generations, some of the earlier excavated mosaic floors in the living quarters were covered with protective sand, before even these areas had been backfilled with excavation soil.

Next page: The wall section under George Washington street during (top) and after (bottom) safeguarding.



Reconstruction

The Western Gate has a high cultural and historic value, and a large communication potential, therefore it was partially reconstructed to be enjoyed by the public. The walls are reconstructed to a level where they can be immediately understood by a general audience. An additional benefit is that this re-

construction also protects the original walls from direct influence of the weather, which in Sofia may range from temperatures of 20 below zero to the 40's above. The reconstructions also mean that the ruins may be touched by people without risking degradation or destruction.

Traditional methods

To make the reconstructed walls look as much like the original ones as possible, and to preserve the original parts in the best possible way, even the original Roman Period mortar was reconstructed. The reconstruction mortar consisted of crushed Roman

tiles, mixed with hydraulic lime, sand, gravel and water. When the work was finished, a line was painted on the wall, indicating the original level and what was new. The same method has been used at the metro *in situ* museum.

Next page: The Western Gate's triangular tower during (top) and after (bottom) reconstruction.





Previous page: The Western Gate's
triangular tower during
reconstruction.

This page: The mortar was mixed
with crushed Roman tiles.

ALL PHOTOS: NIKU





Work station.
PHOTO: NIKU



Manual labour - Roman tiles were crushed by hand.
PHOTO: NIKU

Fast forward into the future

In future, the area of the Western Gate will function as an open air *in situ* museum. Parts of the living areas behind the city wall have been covered to an even level for visitors, and the open area in front of the wall may be used

as a scene for theatre or concerts, with seating to the north of the two towers. Hopefully, this will benefit both the civil society and tourists, as well as researchers, students and cultural and Non-Governmental Organizations.





The Western Gate-
reconstruction in its last stage.

PHOTO: IVAN GENCHEV IVANOV.

Serdika II and the Archaeological Complex

The model exhibition for the Western Gate reconstruction is the Metro station “Serdika II” and the Serdica Archaeological Complex. The excavated ruins

are rebuilt to a certain height, and a line is painted in the mortar to point out where the original ends and the reconstruction begins.



The Serdika Archaeological Complex. Note the painted line indicating the extent of the original wall.

PHOTO: NIKU

THE TRIANGULAR TOWER

The Triangular Tower is the northernmost tower on Serdica's fortification wall, and dates from the reign of Emperor Justinian I in the 6th century AD. Today it is preserved in the basement of a residential build-

ing located at the intersection of Exarch Joseph street and boulevard Maria Louisa. As part of this project, the tower ruin will be conserved and adapted for exhibitions and cultural events.



The Triangular Tower.

PHOTO: <http://www.ancientsofia.bg/bg/content/ТриЪгълНа-Кула>

COLLABORATORS



Sofia History Museum



Sofia Municipality



Norwegian Institute for Cultural Heritage Research

ACKNOWLEDGEMENTS

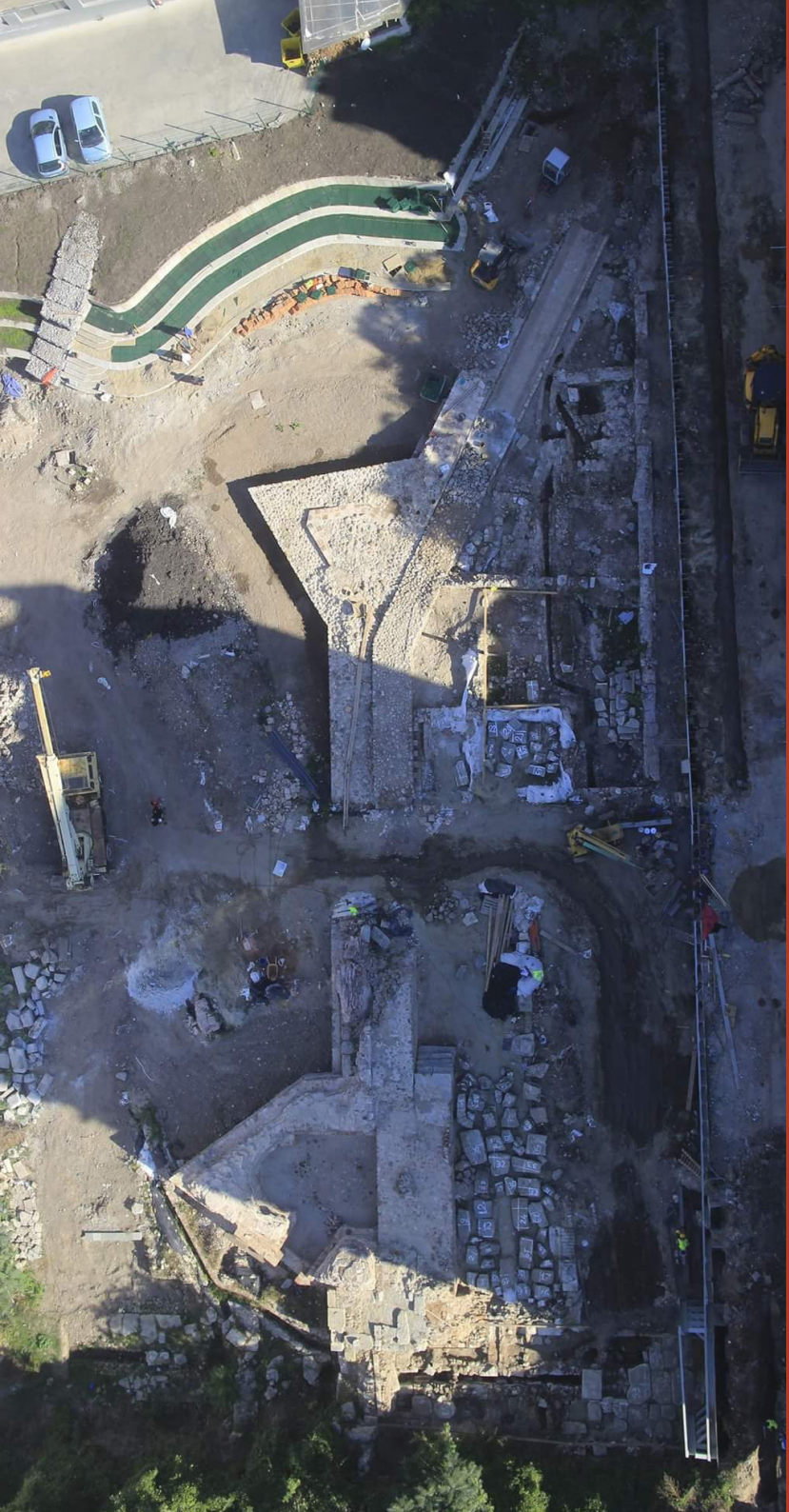
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IVAN GENCHEV IVANOV
METODIJ AND THE OTHER FIELD WORKERS, OUR NEW
FRIENDS





The Western Gate of Serdica during its final stages of reconstruction. PHOTO: IVAN GENCHEV / IANOV