

ANNEX XB

ENHANCED DRAFT OF THE MANAGEMENT PLAN

CHAPTER 2

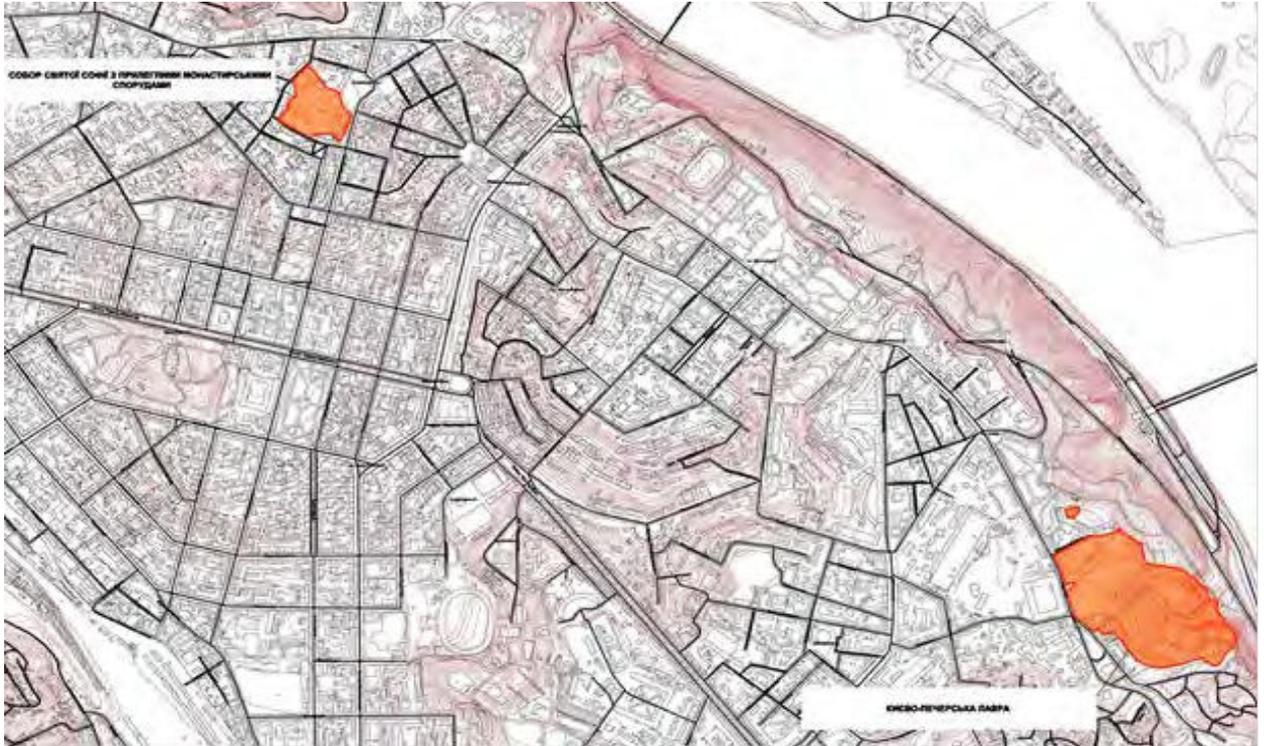
**Mission Report
Joint World Heritage Centre/ICOMOS Reactive Monitoring
Mission to the World Heritage property
Kyiv: Saint-Sophia Cathedral and Related Monastic Buildings,
Kyiv-Pechersk Lavra**

**Kyiv, Ukraine
10 – 14 February 2020**

II General description

2.1. Location Area.

The World Heritage Property “Kyiv: Saint Sophia Cathedral and Related Monastic Buildings, Kyiv-Pechersk Lavra” is located in the central historical part of Kyiv, on the high right bank of the Dnieper River and upper sections of the plateau of Starokyivsky and Pechersky Hills. The area between the Property’s components composes the historical centre of the city with predominantly residential quarters, public buildings and parks. The distance between two ensembles is about 3.5 km.



Location of the Property

Geographical coordinates of the Property’s location:

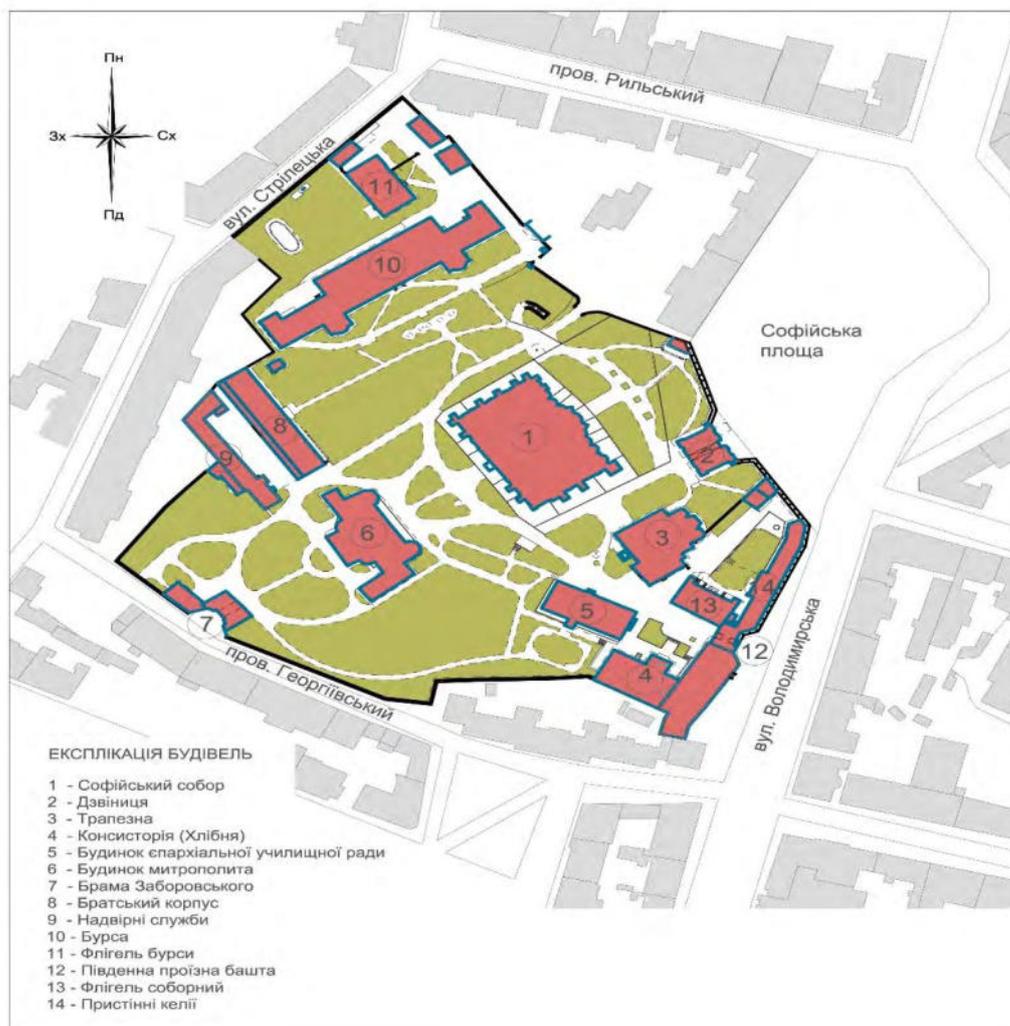
St. Sophia and related monastic buildings -

North latitude B = 50° 27 '10".28; East longitude L = 30° 30 '51". 58.

Kyiv-Pechersk Lavra -

North latitude B = 50° 26 '02".17; East longitude L = 30° 33 '30". 15

The Component “St. Sophia Cathedral and Related Monastic Buildings” is located on the highest area of the historic city center (the center of the Upper Town), at the intersection of its main structure-forming axes, which in the past connected Golden, Sofiivski, Lyadski and Lvivski Gate and at present they are fixed by Volodymyrska, Velyka Zhytomyrska and Sofiivska Streets. The ensemble is located along the main axis of Volodymyrska Street with access to Sofiivska Square, on which Volodymyrskyi Passage - the main compositional axis of the Upper Town is oriented.



Area and location of the buildings of Saint-Sophia Cathedral ensemble

The Component “Kyiv-Pechersk Lavra” is located in the territory that has a pronounced hilly character and is composed of two complexes known as Upper Lavra and Lower Lavra. They vary in size and spatial structures. The Lower Lavra, in its turn, is divided into Near and Far Caves complexes, Gostynny Dvir (Hospitable courtyard) and Lavra ravine with Saint Anthony and Theodosius wells.

The territorial boundaries of the Kyiv-Pechersk Lavra are marked by defensive walls of the ensemble. In the east the territory is hedged by the green space of public use covering the Dnieper River slopes. In the south it is bounded by Pechersk Landscape Park, in the west – by Lavrska Street, and in the north - by Lavrsky Lane and memorial landscape complex known as Park Slavy (Park of Eternal Glory).

The Component “Church of the Savior at Berestove” is located in a separate territory to the north of the Kyiv-Pechersk Lavra ensemble.



Location of the Kyiv-Pechersk Lavra architectural ensemble and the Church of the Savior at Berestove.

2.2. Content of the World Heritage Property's Components.

Content of the Component "St. Sophia Cathedral and Related Monastic Buildings"

No	Name of building	Type of building
Elements of the Component		
1	St. Sophia Cathedral (first half of the 11th c.; late 17th - early 18th cc.; late 19th cc.), protection No 260072/1-H	Architectural, historical and monumental art monument of national importance
2	Bell Tower (1699-1706; 1744-1748; 1851-1852), protection No 260072/2-H	Architectural monument of national importance
3	Metropolitan's House (1722-1737, the second half of the 18th c.; 1822-1842; 1860 - 1880), protection No 260072/3-H	Architectural, historical and monumental art monument of national importance
4	Refectory (1722-1730; the 60-ies of the 18th c.; 1822; 1869-1872), protection No 260072/4-H	Architectural monument of national importance
5	Seminary (1763-1767; 1786-1789; 1822-1825; 1837-1839; 1870), protection No 260072/5-H	Architectural monument of national importance
6	Zaborovskyi Gate (1731-1745), protection No 260072/6-H. Guardhouse renovated in 2007-2009	Architectural, historical monument of national importance
7	South Entrance Tower (late 17th – early 18th cc.), protection No 260072/7-H	Architectural monument of national importance
8	Brethren's Building (1750-1760; 1844), protection No 260072/8-H	Architectural monument of national importance
9	Monastic Walls (first half of the 18th c.), protection No 260072/9-H	Architectural monument of national importance
10	Consistory (Bakery) (1722-1730; 1770-1783; 1819; 1851-1853; 1899-1901; 1914), protection No 260072/10-H	Architectural monument of national importance
Other Objects of the Ensemble		
11	Wall-adjacent Cells of Acolytes (1839-1842; 1870), protection No 260072/11-H	Architectural monument of national importance
12	Cellar for Seminary	
13	Foundations of the Church of the 9th – 13th cc., protection No 260047-H	Archeological monument of national importance
14	Pavilion (1980)	
15	Monument commemorating the first library in Kyivan Rus established by Yaroslav the Wise (made by Ivan Kavaleridze, 1969)	Historical monuments (site of memory) of local importance
16	Seminary Outbuilding (building No 10) (1902)	
17	Diaconal Outbuilding (building No 2), protection No 916-KB	Historical monument of local importance
18	Monastery Hotel (building No 3) (1903; 1908-1910), protection No 575- KB	Architectural monument of local importance
19	Outbuildings (the former coach house) (1838-1840.; 1872; 1897)	
20	Wall-adjacent House (end of the 19th c.).	
21	Underground public convenience (second half of the 20th c.)	

22	Household building (Mid-19th c.)	
23	Transforming substation TP (2007-2009)	New building
24	Household building (Mid-19th c.)	
25	Foundations of the building (11th-12th cc.)	Archeological monument of local importance
26	Wall of the Metropolitan courtyard (12th c.)	Archeological monument of local importance

The structure of the inventory of monuments of St. Sophia Cathedral ensemble of buildings is put in Table 1.

HISTORICAL AND ARCHITECTURAL PLAN OF THE TERRITORY OF THE ARCHITECTURAL ENSEMBLE OF ST. SOPHIA CATHEDRAL



Historical and architectural plan of the architectural ensemble of St. Sophia Cathedral

**Content of the Components “Kyiv-Pechersk Lavra” and
“Church of the Savior at Berestove”**

No	Name of building	Type of building
1	Church of the Savior at Berestove, protection No 2 (building No 84)	Architectural monument of national importance
Elements of the Component “Kyiv-Pechersk Lavra”		
1	Dormition Cathedral (ruins), protection No 4/1 (building No 80)	Architectural monument of national importance
2	Bell Tower of the Dormition Cathedral, protection No 4/2 (building No 81)	Architectural monument of national importance
3	Church over the Economic Gate, protection No 4/12 (building No 82)	Architectural monument of national importance
4	Father Superior’s House, protection No 4/25 (building No 1)	Architectural monument of national importance
5	Metropolitan’s House, protection No 4/13 (building No 2)	Architectural monument of national importance
6	Cells, protection No 4/4 (building No 3)	Architectural monument of national importance
7	Cells, protection No 4/5 (building No 4)	Architectural monument of national importance
8	Economic building, protection No 4/8 (building No 7)	Architectural monument of national importance
9	Printing-House, protection No 4/9 ((building No 8-9)	Architectural monument of national importance
10	Kovnir building, protection No 4/6 ((building No 12)	Architectural monument of national importance
11	St. Nicholas Refectory Church, protection No 4/11 ((building No 25))	Architectural monument of national importance
12	Trinity Gate Church, protection No 4/3 (building No 27)	Architectural monument of national importance
13	Book shop, protection No 893/28-КВ (building No 28)	Architectural monument of local importance
14	Refectory, protection No 4/26 (building No 29)	Architectural monument of national importance
15	Sustaining wall of the Upper Lavra, protection No 893/31-КВ (building No 30-a)	Architectural monument of local importance
16	Church of the Exaltation of the Holy Cross, protection No 4/21 (building No 36)	Architectural monument of national importance
17	Gallery at the Near Caves, protection No 4/32 (building No 37)	Architectural monument of national importance
18	Monastery building, protection No 4/29 (building No 48)	Architectural monument of national importance
19	Church of Nativity, protection No 4/20 (building No 59)	Architectural monument of national importance
20	Gallery near the Church of Nativity, protection No 4/23 (building No 61)	Architectural monument of national importance
21	Bell Tower at the Far Caves, protection No 4/22 (building No 62)	Architectural monument of national importance
22	Church of the Conception of St Anna at the Far Caves protection No 4/24 (building No 67)	Architectural monument of national importance

23	Refectory, protection No 4/27 (building No 85)	Architectural monument of national importance
24	Near Caves, protection No 4/33 (building No 90)	Architectural monument of national importance
25	Far Caves (including Varangian Caves), protection No 4/35 (building No 91)	Architectural monument of national importance
26	Monastery walls, protection No 4/14 (building No 92)	Architectural monument of national importance
27	Defensive Wall around the Near and Far Caves, protection No 867/3 (building No 93)	Architectural monument of national importance
<i>Other Objects of the Ensemble</i>		
28	Library of Metropolitan Flavian, protection No 893/14-KB (building No 5)	Architectural monument of local importance
29	Choir brothers' Cells, protection No 893/15-KB (building No 6)	Architectural monument of local importance
30	Letter-foundry workshop, protection No 893/16-KB (building No 10)	Architectural monument of local importance
31	Prothesis (New), protection No 893/18-KB (building No 11)	Architectural monument of local importance
32	Artists' workshop, protection No 893/19-KB (building No 11-6)	Architectural monument of local importance
33	Bindery, protection No 4/10 (building No 13)	Architectural monument of national importance
34	Typesetting building, protection No 893/20-KB (building No 14)	Architectural monument of local importance
35	Bookbinder's shop, protection No 893/21-KB (building No 15)	Architectural monument of local importance
36	Paint shop of the 19th c. (building No 16)	Historic background building
37	Paint Tower (Northern), protection No 4/ (building No 17)	Architectural monument of national importance
38	Warehouses of the 19th century (building No 18)	Historic background building
39	Hotel building, protection No 918-KB (building No 19)	Architectural monument of local importance
40	Choir brothers building, protection No 4/7 (building No 20)	Architectural monument of national importance
41	Craft cells, protection No 893/22-KB (building No 21)	Architectural monument of local importance
42	Covered gallery, protection No 893/23-KB (building No 21-a)	Architectural monument of local importance
43	Choir Brothers outbuilding, protection No 893/24-KB (building No 22)	Architectural monument of local importance
44	Joinery, protection No 893/25-KB (building No 23)	Architectural monument of local importance
45	Apothecary, protection No 893/26-KB (building No 24)	Architectural monument of local importance
46	Hospital cells with the Church of the Mother of God "Joy of All who Sorrow" of St. Nicholas monastery, protection No 893/27-KB (building No 26)	Architectural monument of local importance
47	Observation platform fence, protection No 893/29-KB (building No 29-a)	Architectural monument of local importance
48	Icon workshop, protection No 893/30-KB (building	Architectural and historical

	No 30)	monument of local importance
49	Photographic workshop, protection No 893/32-KB (building No 31)	Architectural monument of local importance
50	Cells (building No 32)	New construction
51	Brethren's Bath House, protection No 893/33-KB (building No 34)	Architectural monument of local importance
52	Icon Shop, protection No 893/34-KB (building No 35)	Architectural monument of local importance
53	Entrance to the Gallery at the Near Caves, protection No 893/42- KB (building No 37-a)	Architectural monument of local importance
54	Bell Tower at the Near Caves, protection No 4/19 (building No 38)	Architectural monument of national importance
55	Book and Icon Shop, protection No 893/43-KB (building No 39)	Architectural monument of local importance
56	Brethren's building (building No 40)	New construction
57	Entrance to the Near Caves, protection No 893/44-KB (building No 41)	Architectural monument of local importance
58	Building No 42, protection No 4/28 (building No 42)	Architectural monument of national importance
59	Brethren's Cells, protection No 893/45-KB (building No 43)	Architectural monument of local importance
60	Brethren's building at the Near Caves, protection No 4/37 (building No 44)	Architectural monument of national importance
61	Fence of the Monastery garden, protection No 893/46-KB (building No 44-a)	Architectural monument of local importance
62	Brethren's Cells at the Near Caves, protection No 893/47-KB (building No 45)	Architectural monument of local importance
63	Brethren's Cells, protection No 893/48-KB (building No 46)	Architectural monument of local importance
64	Gatehouse, protection No 893/49-KB (building No 46-a)	Architectural monument of local importance
65	Chapel above the Water-well Hole, protection No 893/50-KB (building No 47)	Architectural monument of local importance
66	Monastery building, protection No 4/30 (building No 49)	Architectural monument of national importance
67	Household building at the Far Caves, protection No 4/38 (building No 50)	Architectural monument of national importance
68	Ascetic house at the Far Caves, protection No 893/51-KB (building No 51)	Architectural monument of local importance
69	Brethren's cells at the Far Caves, protection No 893/53-KB (building No 52)	Architectural monument of local importance
70	Brethren's cells at the Far Caves, protection No 893/54-KB (building No 53)	Architectural monument of local importance
71	Hospitable house and office, protection No 893/55-KB (building No 54)	Architectural monument of local importance
72	Gostynnyi Dvir (Hospitable courtyard) Cells, protection No 4/39 (building No 55)	Architectural monument of national importance
73	Monastic building, protection No 4/31 (building No 56)	Architectural monument of national importance
74	Gostynnyi Dvir (Hospitable courtyard) Cells, protection No 4/76 (building No 57)	Architectural monument of local importance

75	Gostynnyi Dvir (Hospitable courtyard) Cells, protection No 893/56-KB (building No 58)	Architectural monument of local importance
76	Household building, protection No 893/57-KB (building No 60)	Architectural monument of local importance
77	Gostynnyi Dvir (Hospitable courtyard) Cells, protection No 893/58-KB (building No 63)	Architectural monument of local importance
78	Candle Factory, protection No 893/59-KB (building No 64)	Architectural monument of local importance
79	Household building of Gostynnyi Dvir (Hospitable courtyard) (building No 64-a)	New construction
80	Administration and amenity building (building No 65)	New construction
81	Gallery at the Far Caves, protection No 4/34 (building No 66)	Architectural monument of national importance
82	Entrance to the Gallery at the Far Caves, protection No 893/61-KB (building No 66-a)	Architectural monument of local importance
83	Hospital of the Gostynnyi Dvir with the Church of the Mother of God "Joy of All who Sorrow", protection No 893/62-KB (building No 68)	Architectural monument of local importance
84	Cells of the Gostynnyi Dvir, protection No 893/63-KB (building No 69)	Architectural monument of local importance
85	Modern house (building No 70)	Historic background building
86	Administrative building of Ukrainian Orthodox Church (building No 70-a)	New construction
87	Cells of the Gostynnyi Dvir, protection No 893/64-KB (building No 71)	Architectural monument of local importance
88	Gatehouse of the Gostynnyi Dvir (building No 71-a)	Historic background building
89	Western Gate, protection No 893/65-KB (building No 71-6)	Architectural monument of local importance
90	Gate and fence at the entrance to the Lower Lavra, protection No 4/87 (building No 71-b)	Architectural monument of national importance
91	Gallery connecting Near and Far Caves, protection No 893/66-KB (building No 72)	Architectural monument of local importance
92	Entrance to the Gallery connecting Near and Far Caves, protection No 893/67-KB (building No 72-a)	Architectural monument of local importance
93	Entrance to the Far and Varangian Caves, protection No 893/68-KB (building No 73)	Architectural monument of local importance
94	Rotunda of Deboskete Sustaining Wall, protection No 893/69-KB (building No 74)	Architectural monument of local importance
95	Rotunda of Deboskete Sustaining Wall with entrance to the gallery, protection No 893/70-KB (building No 74-a)	Architectural monument of national importance
96	St. Anthony Chapel (building No 75)	New construction
97	St. Theodosius Chapel (building No 76)	New construction
98	Deboskete Sustaining Wall, protection No 893/71-KB (building No 77)	Architectural monument of local importance
99	Fence of Deboskete Sustaining Wall, protection No 893/72-KB (building No 77-a)	Architectural monument of local importance
100	Stairs of Deboskete Sustaining Wall, protection No 893/73-KB (building No 77-6)	Architectural monument of local importance
101	Chapel on the grave of the Governor-General Oleksandr Bezak, protection No 893/73-KB (building	Monument of architecture, history and monumental art of local

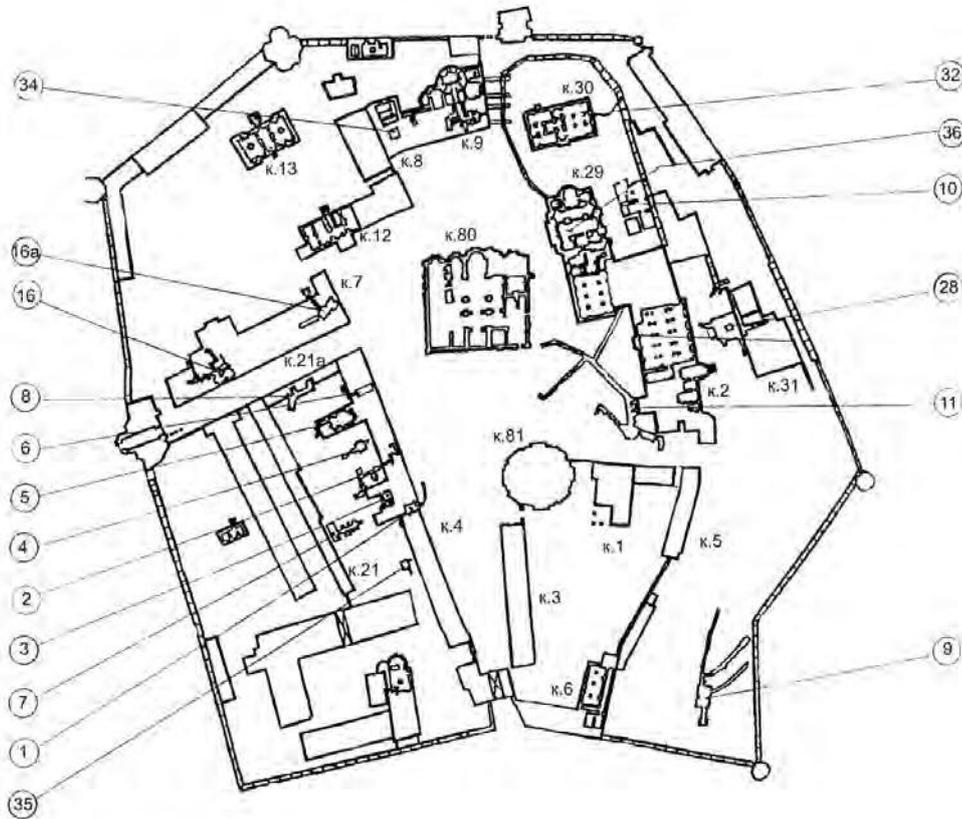
	No 78)	importance
102	Southern Gate, protection No 893/75- KБ (building No 79)	Monument of architecture, history and monumental art of local importance
103	Onufriy (Chamber) Tower, protection No 4/15 (building No 83)	Architectural monument of national importance
104	Church of the Annunciation, protection No 4/36 (building No 86)	Architectural monument of national importance
105	Greenhouse of the 19th c. (building No 87)	Historic background building
106	Ivan Kushnyk (Clock) Tower, protection No 4/16 (building No 88)	Architectural monument of national importance
107	Southern Tower, protection No 4/18 (building No 89)	Architectural monument of national importance
108	Household building, protection No 893/37-KБ (building No 94)	Architectural monument of local importance
109	Blessing-water Ciborium at the Upper Lavra, protection No 893/39-KБ (building No 95)	Architectural monument of local importance
110	Blessing-water Ciborium at the Far Caves, protection No 893/77-KБ (building No 96)	Architectural monument of local importance
111	Rotunda near the Near Caves, protection No 893/78-KБ (building No 97)	Architectural monument of local importance
112	Cells of the Gostynnyi Dvir (building No 98)	New construction
113	Cells (building No 99-99a)	New construction
114	Boiler-house, protection No 893/40-KБ (building No 100)	Architectural monument of local importance
115	Hospital with Church, protection No 454/1-KБ (building No 111)	Architectural monument of local importance
116	Brick fence with grille, protection No 454/4-KБ (building No 111-a)	Architectural monument of local importance
117	Book depository, protection No 454/3-KБ (building No 112)	Architectural monument of local importance
118	Water tower, protection No 454/2-KБ (building No 113)	Architectural monument of local importance
1119	Underground structures of the Upper Lavra	Architectural monument of local importance

Historical and Architectural plan of the territory of the Kyiv-Pechersk Lavra ensemble of buildings.

The structure of the inventory of monuments of the Kyiv-Pechersk Lavra ensemble of buildings is put in Annex (Table).

Underground structures of the Upper Lavra

A complex of underground structures of the 17th-20th centuries is located in the territory of the Upper Lavra. These structures differ by their functional purposes (religious, household, engineering, fortification) and structural characteristics.



Map of the location of underground structures of the Upper Lavra

Explanatory notes:



- number of underground structure

к.

- number of building

The complex of underground structures of the Cells of Cathedral Hieromonks includes 7 underground structures No 1, 2, 3, 6, 5, 4, 35.

The complex of underground structures of Economic building includes structures No 16 and 16-A.

The underground structure No 34 is located under the Printing-House.

The Household structure under the covered gallery (underground structure No 8) is located in the northern part of the Upper Lavra.

The ice and food cellar under the Observation platform (underground structure No 10) is located in the south-western part of the Observation platform of the Upper Lavra.

Wine Cellar in the Metropolitan's garden (underground structure No 9) is located in the western part of the Metropolitan's garden and to the north-east of Ivan Kushnyk (Clock) Defense Tower.

Underground structure near the Photographic workshop (underground structure No 28) is located between the building of the Photographic workshop and the Refectory kitchen.

Drainage gallery of the ice cellar (underground structure No 32) is located in a soil mass under the Observation platform of the Upper Lavra (in its south-eastern part), limited by Sustaining wall of the Upper Lavra where the entrance to this structure is situated.

The air intake duct of the ventilation system of the Refectory of the 19th century (underground structure No 36) is located under the floor of the cellar in the middle part of the Refectory Church. A new entrance was arranged in the floor of the cellar in the form of an access plate.

Underground structure No 11 is located under the planned area of the Upper Lavra Cathedral Square in its southern part. The section of the structure location borders on the territory of the Metropolitan's House on the south, on the Library of Metropolitan Flavian on the west, on Refectory Church on the east and on the Dormition Cathedral on the north.

Underground structure No 7 is located in the north-west part of the courtyard between the Cathedral Hieromonks Cells and close to the southern facade of Craft Cells.

2.3. Historical development

Kyiv, the capital of Ukraine, is one of the oldest and biggest historical cities of the Eastern Europe. Since the beginning of formation of the Ukrainian Medieval State in the territory of Seredne Podniprovia (the region from the mouth of the Desna river to the Khortytsia island), the city has played the role of its spiritual, cultural and political center. Particular importance Kyiv has gained under the Christianization of Rus. This period was marked by the construction of numerous sacral monuments, among which there were Saint Sophia Cathedral, Kyiv-Pechersk Lavra and Church of the Savior at Berestove, that became the main spiritual centers.

Saint Sophia Cathedral, according to the results of current researches, was built in 1011-1018, during the heyday of the Ancient Rus' state, on the verge of the reign of Grand Prince Volodymyr the Great and his son Yaroslav the Wise. It was constructed on the plateau adjacent to the oldest part of the city ("Dytynets" or the "City of Volodymyr"). This territory in historiography was named "City of Yaroslav", because it was under the reign of this prince that the construction of the fortifications around this part of the city, initiated under Volodymyr's reign, was completed. The Cathedral was deliberately located in the city center at the intersection of its main structure forming axes that connected Golden, Sofiivski, Lyadski and Lvivski Gates. Owing to its location the Cathedral took a key role in the planning and volume-dimensional structure and dominated in the Upper Town environment.

The City of Yaroslav was in several times larger than the area of the previously built City of Volodymyr. Its location has been defined by the natural features of the Kyivan upland and main routes that have already been established. The new city completely occupied the upper part of the plateau adjacent to the Dnieper River and the upland dominating Podil district, as well as part of the smooth slopes of Kreshchata valley. The defensive ramparts encircling the Upper City, which were built with the maximum use of protective qualities of relief, passed along the edge of steep slopes, along the terrain faults and on small flat areas only near the gates.

Model of Ancient Kyiv (fragment)

The natural conditions for the location of the cathedral and later the monastery contributed at most to their identification in the environment and active interaction with other outstanding buildings and complexes of the Upper City: the Desyatynna Church, St. Michael's Golden-Domed Cathedral, Annunciation Church over the Golden Gate, and later St. Andrew's Church, St. Olexandr Cathedral and others.

Stages of historical development of St. Sophia Cathedral and Related Monastic Buildings (Table 2).

St. Sophia Cathedral was the main Orthodox church of Kyivan Rus-Ukraine, the centre of Kyiv Metropolia. The Cathedral was constructed by Constantinople's architects invited by the prince Volodymyr the Great, with participation of local builders.

At that period it was a five-nave cross-domed temple, surrounded on its three sides by two rows of open galleries. There were single-tier external galleries and two-tier internal ones. The Cathedral was crowned with 13 domes. Its territory was surrounded by a wall, the foundation remnants of which were found during archeological research.



St. Sophia Cathedral. Reconstruction of the authentic appearance



St. Sophia monastery. Drawing by Abraham van Westerfeldt. 1651.

As the Main Metropolitan church, St. Sophia Cathedral became the center of social, spiritual and cultural life of Kyivan Rus-Ukraine. There were held the ceremonies of princes' consecration on the throne, ordination of metropolitans and bishops, as well as receptions of foreign ambassadors. Near the Cathedral were held viche (popular assembly), the chronicles were written in its premises and the first in Rus' library was founded there. St. Sophia Cathedral was the burial place of princely dynasty as well as higher clergy.

St. Sophia Cathedral was repeatedly looted during the princely strifes, especially in 1164, under Suzdal Prince Andriy Bogoliubskyi invasion. In 1180 the Cathedral suffered the great fire.

In 1240, when Kyiv was captured by the Mongol Tatar hordes of Batu Khan, St. Sophia Cathedral survived, but was looted and devastated.

In the 14th century the South-Western Rus came under the authority of the Lithuanian state. A special metropolis of the Orthodox subjects of the Lithuanian prince was created. However, frightened by the numerous incursions of the Crimean Tatars, the South Rus metropolitans hardly lived in Kyiv preferring have their residences in the capital of Vilna or Novogradok near Vilna. The Sophia Cathedral remained without maintenance for a long time.

After the Union of Brest in 1596, the Cathedral became Uniat. A fierce struggle for the Cathedral between the Uniates and the Orthodox continued and the state of conservation of St. Sophia remained poor. Church services in St. Sophia stopped from 1609. In the first quarter of the 18th century the western wall of the Cathedral fell, filling the main entrance with the rubble.

The renovation of the Cathedral was carried out by Metropolitan Petro Mohyla (1633-1647). By his order major repair and restoration works were carried out. He founded a monastery at the Cathedral and constructed the wooden buildings for this purpose. However, the restoration of the Cathedral took a very long time and was not completed.

St. Sophia Cathedral was completely restored under Hetman Ivan Mazepa (1687-1709). Due to the major renovation and restoration works of that period, the Cathedral exterior acquired baroque appearance, which in its main features has survived to this day. The second floors were added to the single-tier open galleries and the galleries were transformed into enclosed spaces with side altars. Six new cupolas were erected over the cathedral and their total number became nineteen. The facades were plastered and whitewashed, the cupolas were gilded. In particular the western facade of the Cathedral with its central portal, reconstructed of the ruins, was decorated with splendor. A high fronton, decorated with stucco molding, was erected over the middle part of the Cathedral, slightly deepened from the facade line.

The last construction work dated 1889, when a narthex was built in the place of the western outdoor gallery of the Cathedral that had been destroyed at the beginning of the 17th century.

In the middle of the 19th century the restoration works were conducted in the Cathedral under the Academician Fedir Solntsev guidance. The ancient painting of St. Sophia Cathedral was opened. However, the newly discovered frescoes had been re-painted with oil colours that were taken by restorers only in the 20th century.

From the medieval planning structure of the development of the area around St. Sophia Cathedral, only the remains of the foundations of separate structures have been preserved.

After the fire of 1697, which destroyed the wooden building of the monastery, an ensemble of stone structures in the same Baroque style began to form around the temple.



M. Sazhyn St. Sofia Monastery in Kyiv. Water colours. End of 1840s.

The first stone buildings, erected after the fire in 1697, were a three-tier Bell Tower (1699-1706; 1744-1748) and two-tier South Gate Tower (the late 17th - early 18th cc.). The perimeter of the defensive walls, namely the first fragment between the Bell Tower and the South Gate Tower, dated 1699-1707, began forming. Under the Metropolitan Barlaam Vanatovych (1722-1730) the next stage of the development of the Cathedral territory began. It was continued under the Metropolitan Raphail Zaborovskiy (1731-1747) and Tymofiy Scherbatskiy (1748-1757). At that time the Metropolitan's Residence was built (1722-1737), to which led the Western Front Entrance – Zaborovskiy Triumphal Gateway with a guardhouses that were erected in 1731-1745 and dismantled in 1822-1823. There were also constructed the following buildings: the Refectory Church (1722–1730), the Bakery (1722–1730; 1770–1783), the Brethren Building (1750–1760-ті) and the Seminary (Bursa) (1763-1767). The formation of the perimeter of the defensive walls was completed. As a result of the new construction activities, in the 18th century the area of the Cathedral almost doubled.

In the second half of the 19th - early 20th cc., some new monastic buildings were added to St. Sophia estate: Wall-adjacent Cells of Acolytes (1839-1842), Outbuildings of the Metropolitan courtyard (1838-1840), Diaconal Outbuilding (1879), Diocesan Council Building (1903, 1908 -1910) and Seminary Outbuilding (1902) **(Annex: Historical development of St. Sophia Cathedral and related monastic buildings).**

A dynamic development of Kyiv in the late 19th - early 20th cc., led to a gradual decrease of the St. Sophia Cathedral's estate. As a result of the replanning and seizures of buildings, the present area of the Cathedral ensemble covers 5.02 hectares.

After the establishment of the Ukrainian Autocephalous Orthodox Church (UAOC) in 1919, St. Sophia Cathedral got the status of the metropolitan church. At the same time the Ukrainian Archaeological Committee of the Ukrainian Academy of Sciences was established there. Researches and restoration works have been conducted. Since 1929, after the liquidation of UAOC, the Divine Services in the Cathedral were stopped.

In 1934 the State Conservation Area “Saint-Sophia of Kyiv” was established. In spring 1935 the Cathedral was opened to public. The creation of the Conservation Area has opened great opportunities for research and restoration work.

Kyiv-Pechersk Lavra



Загальний вигляд Києво-Печерської лаври. 1902 р. Хромолітографія А. Жданю.
General View of the Kyiv-Pechersk Lavra. 1902. Chromolithography by A. Zhdan.

General View of the Kyiv-Pechersk Lavra, 1902. Chromolithography of A. Zhdan

The initial point of the formation of the architectural complex of the Kyiv-Pechersk Lavra is considered to be the turn of 1040 – 1050 years, when a cave town appeared in the southern outskirts of Kyiv, near the Prince's country residence in the Berestove village. Thus, by the end of the 11th century two cave complexes - the Near and Far Caves, have been formed.

The construction of the Dormition Cathedral in 1073-1078, the first stone building, on the top of the hill above the Dnieper River laid the foundation of the formation of the architectural ensemble. From the very beginning, the Cathedral has played a dominant role in the panorama of the Kyivan hills.

Afterwards, in close proximity to the Dormition Cathedral there were constructed the cells for monks while caves became places of retreat for some hermits and were used for burial of the passed away brethren. Starting from the late 11th and till the early 12th centuries actually a new monastery has been formed on the plateau adjacent to the Cathedral. The stone Trinity Church was built over the main gate of the monastery in 1106 – 1108, as well as stone refectory (1108). The Monastery territory was surrounded by defensive walls.

In the first half of the 13th century, the earthquake of 1230 seriously damaged the monastic buildings. In 1240 the Monastery was destroyed and looted by the hordes of Batu Khan. The Trinity Gate Church is the only ground monastic building, which has been preserved intact since the Kyivan Rus period.

During the 14th century monastic buildings and structures that had been ruined or damaged were gradually rebuilt.

The history of the development of the architectural ensemble during the 16th century can be traced from the foreign travellers' notes:

- Martin Groenewegen in his memoirs described the general aspect of the Monastery in 1584;
- Erich Lassota made the description of the Upper Lavra during his visit in Kyiv in 1598.

The first known plans that reflect the development of the whole territory of the Kyiv-Pechersk monastery at the turn of the 16th and 17th centuries were published in the book "Teraturhima" written by Atanasiy Kalnofoyskyin (1638). One can also see this development in the paintings of the artist Abraham van Westerfeldt (1651, [picture No...](#)) and one of the oldest plans of Kyiv known as "Kiev Grad Drawings..." made by Colonel Ivan Ushakov (1695 [picture.No ...](#)).

These plans and drawings show basic planning principles of regularity (that are characteristic for the Upper Lavra territory, located on the flat top of the plateau) and irregularity (that are typical for the territory of the Near and Far Caves with sudden changes in its topography and large green spaces).

The 17th and 18th centuries have become the “golden era” for Lavra. That was the time for rapid development of stone construction techniques, European art styles such as Renaissance, Baroque and Rococo are being actively adopted and national architectural style is being formed. In so doing, stone walls with towers and churches around the Upper territory were erected. It was also arranged the system of underground passages and cellars to store gunpowder and food supplies. The function of those monastic defensive walls was not only to separate the monastery, but also to serve as an important element of urban fortification system. Along with the defensive walls two Gate Churches were erected. The first one, which was built over the Southern (Cave) Gate was destroyed by the earthquake in the end of the 18th century. The second one, the Church of All Saints was built over the Economic Gate.

Two small stone churches - St. Andrew the Apostle Church and the Church of the Conception of St. Anna, were built in the Far Caves territory in Lower Lavra. The wooden Church of the Nativity of the Virgin was replaced by the stone one. The first monumental stone building – the Church of the Exaltation of the Holy Cross, appeared in the territory of the Near Caves.

The formation of the architectural and landscape ensemble of Kyiv-Pechersk Lavra in its modern forms is associated with its reconstruction after the fire of 1718.

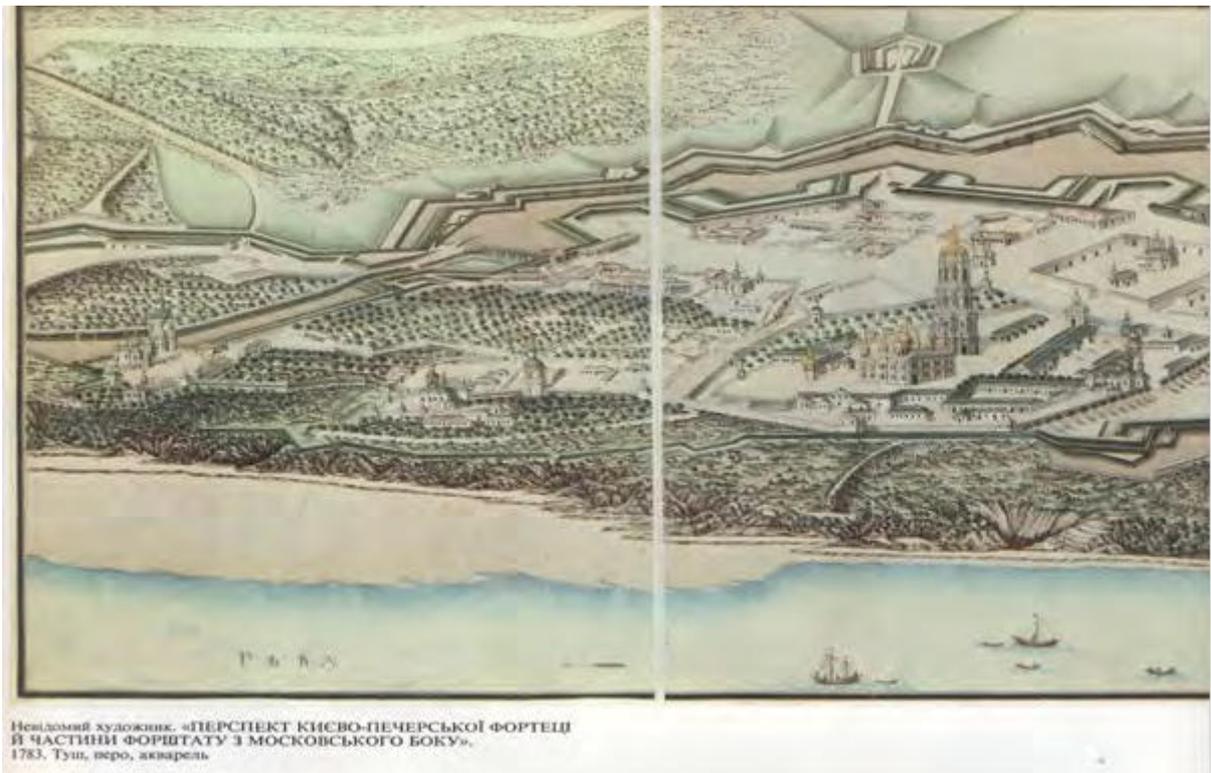
The Dormition Cathedral was renewed and significantly extended, the Cathedral Hieromonks and Choir Brothers Cells, Father Superior’s House, the Printing-House and other structures were built. The most significant construction of that period was the Great Lavra Bell Tower, the highest architectural element of the ensemble.

Thus, by the middle of the 18th century the architectural ensemble of the Kyiv-Pechersk Lavra has been generally formed. With that, its urban carcass, which has been formed earlier, was kept untouched. This unique ensemble has acquired a clearly explicit and nationally colored Baroque stylistics, and has become organically linked to the unique landscape of the Dnieper River. Since then, it forms a very picturesque silhouette of Kyiv from the Dnieper River side.

Further activities fulfilled in the Upper Lavra territory were aimed at recovering from the earthquake of 1789. Reconstruction and reinforcement works were carried out with participation of the military engineers of Kyiv-Pechersk Fortress. The steep slope of the Near Caves hill was reinforced by the stone wall of the original structure (so-called “Sustaining wall of Deboskete”), a truly unique piece of engineering solution. It was also the time when unique engineering constructions (the first drainage tunnels that have been partially preserved until now) were built and used in Lavra and surrounding areas.

Since the middle of the 18th century the development of Gostynnyi Dvir (Hospitable courtyard) was initiated. One-story wooden buildings for pilgrims were constructed there.

After the earthquake (1789) the restoration and fortification works were carried out with the participation of military engineers of the Kyiv-Pechersk Fortress. The steep slope on Blyzhniopechernyi (Near Cave) Hill was fortified by a wall of original construction (the so-called Debosket wall) - a unique engineering work. At the same time, especial engineering structures were established in Lavra and in the surrounding territories – the first drainage galleries that have been partially preserved to this day.



The panorama “Perspective of the Kyiv-Pechersk Fortress and a part of outer settlement from Moscow side” reflecting the general view of Lavra architectural complex in the end of the 18th century.

Since the late 18th and early 19th centuries the construction activities in the territory of Kyiv-Pechersk Lavra have been done in the style of classicism, which was typical for that time and replaced the Ukrainian Baroque style.

Due to the construction of the New Pechersk Fortress that included also the territory of Lavra, powerful fortress walls were built around the Near and Far Caves in 1844-1847. As a result, the planning composition of this territory has been significantly changed. Defensive walls have encircled all ground buildings of both caves complexes. On the north these walls joined the Upper Lavra defensive walls (early 18th century).

The most important buildings of the Upper Lavra erected at the turn of the 19th – 20th centuries in architectural forms of Historicism were the Refectory Chamber with St. Antony and St. Theodosius church (1893–1895) and the Annunciation church (1904–1905).

One of the largest brick monastic buildings, a double-storey hotel for pilgrims (1907–1908) was constructed outside the Upper Lavra together with the Hospital with church (1911–1914).

The establishment of the “All-Ukrainian Museum Town” on the “former Kyiv-Pechersk Lavra” grounds in 1926 with a status of the Historical and Cultural State Preserve allowed saving that extremely valuable ensemble in the hard years that came after the revolution of 1917.

During the Second World War the Dormition Cathedral was demolished, and the surrounding buildings were significantly damaged. That outstanding church destruction harmed badly not only the architectural ensemble of Lavra, but also the historical panorama of Kyiv.



Ruins of the Dormition Cathedral

After the war a major reconstruction work was carried out on the Kyiv-Pechersk Lavra buildings and structures having the status of historical and cultural heritage properties.

The restoration and consecration in 2000 of the main shrine of the monastery – the destroyed Cathedral of the Mother of God Dormition was a significant event. The Cathedral has resumed its role as an architectural dominant of not only the Cathedral Square, but also the whole Kyiv-Pechersk Lavra architectural complex.

In general, the Kyiv-Pechersk Lavra ensemble with its millennial history is a unique open-air museum of forms and styles representing the best examples of the national architecture.

See Iconography of historical development.

Component “Church of the Savior at Berestove”

The Church of the Savior at Berestove is one of the few monuments of the Kyivan Rus that has been preserved to our time, though in a rather altered form.

The date of the construction of the Church of the Savior at Berestove is unknown. It is suggested that the church was built by St. Prince Volodymyr in memory of his baptism (988). This version was set forth in “Synopsis” by Innocent Giselle, “Teraturgima” by Athanasius Kalnofoysky (1638), “Chronicle” by Maciej-Stanislav Strykovskiy (1582), “Brief historical description of Kyiv-Pechersk Lavra” by Metropolitan of Kyiv Samuel (Myslavskiy) (1817), “Short description of Kiev ...” by Maxim Berlinskyi (1820) publication in “Selected Works on the History of Kyiv” by E. Bolkhovitinov (Metropolitan) and others.

The opinion that the temple was built by Prince Volodymyr Monomakh at the beginning of the 12th century, was expressed by Petro Lashkariov at the end of the 19th century, which was supported by Mykola Petrov and Fedir Ernst. The main argument of this hypothesis is that the church became the family vault of the Monomakh descendants.

Recent analysis of historical data, the results of recent archaeological and chemical-technological studies, graphical experiments of the proportions of the ancient structure have suggested that the time of the construction of the ancient volume of the church, can be attributed to the 11th century.

In its original form, the Church of the Savior at Berestove existed probably until the middle of the 13th century. As a result of the earthquake (1230) and Tatars raids (1240), the church was destroyed: only the lower tier of the western part (narthex) of the temple remained from the ancient structure.

In the late 14th and early 15th centuries the repair work, although fragmentary, has been initiated.

In the middle of the 18th century under Metropolitan Petro Mohyla, the restoration works of the temple were carried out, including the addition of the apses to the preserved part of the church, using the construction material of the destroyed part, as well as of the wooden antechurch, topped by a dome, wood shingle roof and two wooden cupolas.

At the beginning of the 18th century, during the construction of the new Kyiv Fortress, the earthworks were erected such as ramparts and bastions including Spassky bastion near the Church of the Savior at Berestove. At the same time, the renovation of the church began and a new stone antechurch was added. The church became a five-domed and cruciform in plan.

In the early 19th century major repair works were carried out, during which a stone bell tower was added in classical forms typical for that time according to A. Melenskyi’s project. It sharply differed from the style of the main volume of the church. This architecture of the church has been preserved till nowadays.

The next major repair of the church was carried out in 1910-1914. Along with other works, a new roof was arranged with the preservation of the old form.

Historical development of the immediate surrounding of the Property

The formation of architectural ensembles of the components of the Property, located at a distance of about 3.5 km from each other, took place within the framework of various city-formations of the city of Kyiv - Old City and Pechersk districts. The Old City, where St. Sophia Cathedral and related monastic buildings are located, has long played the role of the city public center, while the Pechersk area, where the Kyiv-Pechersk Lavra is located, began its formation as a princely countryside residence (Berestove village) and later was included within city boundaries. The fortification complexes of the Kyiv Fortress had a significant influence on the development of the planning structure of both districts. The main array of historical developments of both districts was formed after the elimination of the fortifications in the late 19th and early 20th centuries.

Historical development of the immediate surrounding of the territory of the Component “St. Sophia Cathedral with Related Monastic Buildings”. Buffer zone.

The immediate architectural and town-planning surrounding of St. Sophia Cathedral ensemble in its main features was formed during the 1840–1910's on the basis of the planning structure of the city of Yaroslav established in the period of Kyivan Rus'. According to the Master Plan of Kyiv of 1836–1837 developed by the architect Vikentiy Beretti, the planning of quarters and parceling of estates, tracing and levelling of streets in the framework of the general reconstruction of the territory around St. Sophia Cathedral ensemble as a part of the Upper city had been started simultaneously with the demolition of the ramparts of the Old Kyiv Fortress. Important stages were the creation of Sofiiivska Square as a town-planning formation and alignment of the Volodymyrska Street in the middle of the 19th century. This street was conceived as a direct highway from Desyatynna Church to St. Volodymyr University. In the late 1840s Volodymyrskyi passage with five public parks was planned as a parterre in front of St. Sophia estate and the house of government agencies in place of the transverse rampart of the Old Kyiv Fortress. The planning of the area between the St. Michael's Golden-Domed Cathedral and St. Sophia Cathedral contributed to emphasize the visual axis between St. Sophia and St. Michael's Cathedrals, to ensure the leading compositional role of ensembles of the monasteries and churches of the Kyivan Rus' times in the urban structure of the Upper city.

In the second half of the 19th – the early 20th century the territory of the Upper city became an integral town-planning formation, which was reflected not only on urban plans, but in its spatial structure.

The architectural environment of the territory had been acquired the European features, received a developed infrastructure and had been formed as a multi-layered unity in that time. Its foundation, which is still preserved today, was a dense ribbon residential building of medium height (3–4 floors) with the dominance of buildings in neo-renaissance style, which reflects tendencies in style typical for the period of historicism. The development of the central part of the Upper city in that period is distinguished by historical homogeneity, which excludes the mixing of the architectural heritage of different periods. The central core of the Upper city is characterized by a stylistic unity and artistic equivalence between the elements. It was determined by the conditions of its formation in a poorly built-up area in a relatively short half-century time. The central core of the Upper city is also characterized by a single scale of ribbon high-rise building with the same rhythm and accentuation.

The domination of the residential building has contributed to the secular character of the architectural environment, evident even in the ensembles with strong semantic and urban development dominant as St. Sophia and St. Michael monasteries. These features were intensified by public parks (Volodymyrska Hill) and small recreational areas – squares, decorated with monuments and small architectural forms (squares of Volodymyrskyi passage, Zolotovorotskyi square, boulevard part of Kostiolna Street).

Clearly determined environmental areas (in some cases they had been in general outlined in the previous Classicism period) with a well-defined functional and stylistic specificity were formed in the structure of this territory. Within the buffer zone it is possible to identify the complexes of Prorizna, Volodymyrska, Velyka Zhytomyrska, Yaroslaviv Val and Kostiolna Streets also Sofiivska and Mykhailivska Squares, Zolotovoritskyi Square and adjacent quarters around the Opera House being formed in late 19th –early 20th and having the features of the ensemble. The historically formed qualities of these complexes and ensembles require the conservation and regeneration.

These mini-areas have the significant concentration of the modern and proto-modern architectural monuments in comparison to other areas of the city. That enriches the visual quality of the environment, namely its plastic and silhouette expressiveness. In particular, these are buildings on the 1, 7, 14-Б, Yaroslaviv Val Str.; 33, Gonchara Str.; 23, 25, 32, Velyka Zhytomyrska Str.; 10, 39/24 Volodymyrska Str. and 7, 9 Kostiolna Str.

Some complexes of mansions of memorial and architectural importance have survived until nowadays. First of all these are Podhorsky's mansion on 1, Yaroslaviv Val Str., family mansion of the aircraft designer Igor Sikorskyi on 15, Yaroslaviv Val Str. and mansion of the artist Oleksandr Murashko on 14, Mala Zhytomyrska Str.

In 1930s the architectural and town-planning environment of the immediate surrounding of St. Sophia Cathedral and Related Monastic Buildings was supplemented with separate residential buildings in new “Soviet retrospective” style (2, Georgijivsky Lane; 1, 2, Reitarska Str.). In 1940–1950s new buildings were constructed in places of local destructions of WW II that supplemented the background building (19, Volodymyrska Str.; 12, Rylskyi Lane; 11, Zolotovoritska Str.; 2, 13/2, 19, 20, Yaroslaviv Val Str.).

In early 2000s the area of the Upper city survived a period of increasing commercial and construction activities. Free spaces, places with emergency and low-value building were intensively built up. Background building elements were built on. Unfortunately, in most cases, new buildings did not correspond to the compositional, scale and architectural qualities of the traditional historical environment.

Historical development of the immediate surrounding of the Component “Kyiv-Pechersk Lavra” and “Church of the Savior at Berestove”. Buffer zone.

The urban development of the Pechersk district, one of the most ancient historical districts of Kyiv, is inextricably linked with characteristics of landscape and territory where it is located. The Pechersk Plateau, being part of the Dnieper hills right bank and interacting actively with the adjacent Dnieper River valley, has become the main platform for urban development of this district.

In the structure of the city of Kyiv, the historical district of Pechersk during the 11th – 18th centuries played role of a suburban settlement in the southern neighborhood of the city, aimed at meeting the needs of the monasteries located here such as Kyiv-Pechersk monastery, Pustynno-Mykil'sky (founded in the 11th century) and Voznesenskyi (Ascension) (founded in the 16th century). In this regard, the development of Pechersk significantly differed from similar suburban areas of Kyiv, and was determined by the specific role played by these monasteries in society, first of all, the Kyiv-Pechersk one.

In ancient times, one of the largest highways of the district - Lavrska Street appeared. At first, it was the road that connected the Kyiv-Pechersk monastery and the princely countryside residence in Berestove with the Old Town and Podil District. Small monastic settlements were formed along this road.

The active urban development of the ancient Pechersk district was suddenly interrupted in 1240 because of the invasion of Khan Baty's host in Kyiv. This and other devastations slowed down the development and further exploring of this territory almost for several centuries.

New stage of urban development of Pechersk district began at the end of the 16th – the first half of the 17th century. This area was one of the three main city-forming cores of Ancient Kyiv (the Old City, Podil and Pechersk districts), which formed an integrated planning structure of the city of Kyiv at the beginning of the 19th century.

Determinant factors in the formation of the planning scheme of Pechersk town, as well as any other settlement, were the natural barriers and topographic features, as well as the direction of the main roads. These factors determined not only the planning system, but also influenced the configuration and composition of defensive fortifications, the location of city gates, direction of the streets, shape and size of the quarters, etc.

Because of the threat of Swedish intervention in 1706–1723, the monastery with its surrounding territory was surrounded by a semi-circle of earthen bastion fortifications of the citadel of the Kyiv-Pechersk Fortress. At the end of the 17th century Pechersk town becomes the military-administrative center of Kyiv.

During the construction of a new earth bastion fortress, practically all Pechersk town residents were relocated to other parts of Kyiv and this territory was adapted to new military needs. At the same time, almost all its buildings have changed their functional purpose.

The Kyiv-Pechersk Fortress turned into a special urban-based organism, isolated from adjacent urban areas. The location of the Governor-General's residence, the house of the Commandant and other institutions within the Fortress turned it into the military and administrative center of the city in the first half of 18th century.

In the first half of the 19th century, the construction of a new Kyiv Fortress began; meanwhile the old fortification of the 18th century played the role of a citadel.

When the Kyiv fortress got new status of a fortress-warehouse, the fortifications of the citadel gradually decline. At the beginning of the 20th century, the northern Kyivan Main and Ravelin Gates (located along the present Lavrska Street) were dismantled. At that time, the building up of the Esplanade started (Anosivsky Square was planted – today it is the Memorial Park of Glory (Park Slavy), a hippodrome building was constructed).

In the 1930's, a part of the western rampart with the Vasylkivska Main Gate and a guardhouse near the Kyivan Gate had been demolished.

The area between the citadel and demolished part of the western rampart in 1950- 1980 was built up with low-rise, mid-rise and high-rise residential buildings.

Large-scale urban development began after WW II. In particular, Panfilovtsev Street (now – Dobrovolchyh Batalioniv Str.) with low-rise private residential buildings had been laid out in the place of the south-western external rampart. Also, after WW II, new roads were laid - highways of local importance near Moskovska Gate (Upper).

The radial layout of the Fortress's territory was significantly altered by the location of an industrial enterprise (a former shoe factory) and the building-up of its territory by residential quarters in the 1960s; separate fragments of this planning have been preserved by historic building.

In 1978–1981 a museum and park complex (today it is the National Museum of History of Ukraine in the Second World War) was created at the place of the far and near retrenchments. With the construction of this memorial complex another focus appeared in the panorama of Kyivan Hills that is the Motherland Monument.

The territory of the Dnieper Hills, which integrates the components of the World Heritage property, has not undergone significant changes in the historical development. Only minor low-rise construction and activities aimed at ensuring the stability of the Dnieper slopes from dangerous landslide processes were conducted within this area (additional landscaping of the territory, arrangement of retaining walls etc.).

(Annex "Iconography of historical development")

2.4. Natural characteristic

Climate. The area, where the World Heritage Property “Kyiv: Saint Sophia Cathedral and Related Monastic Buildings, Kyiv-Pechersk Lavra” is located, is characterized by a temperate continental climate with relatively short spring and autumn and long summer and winter seasons.

The main meteorological characteristics are submitted according to the data of Kyiv weather station. Annual precipitation totals range from 405 to 925 mm at the rate of 610 mm (Kyiv Observatory meteorological station). Snow cover in winter is unstable. In occasional years the snow cover depth is up to 40-50 cm, the volume of water in the snow is 40 mm and soil freezing reaches up to 90 cm. The average annual temperature is +8,0°C. The warmest month is July (+19,8°C), the coldest month is January (-4,70°C). The average period without frost (within the dates of the last spring and first autumn frost) is 188 days. The average temperature of the soil surface is +9°C.

By the amount of precipitation the area of the Property refers to a zone of adequate humidity. The precipitation has cyclical nature throughout the year. In average, 641 mm of annual precipitation fall: in the cold period - 244 mm (35%), in the warm period - 417 mm (65%).

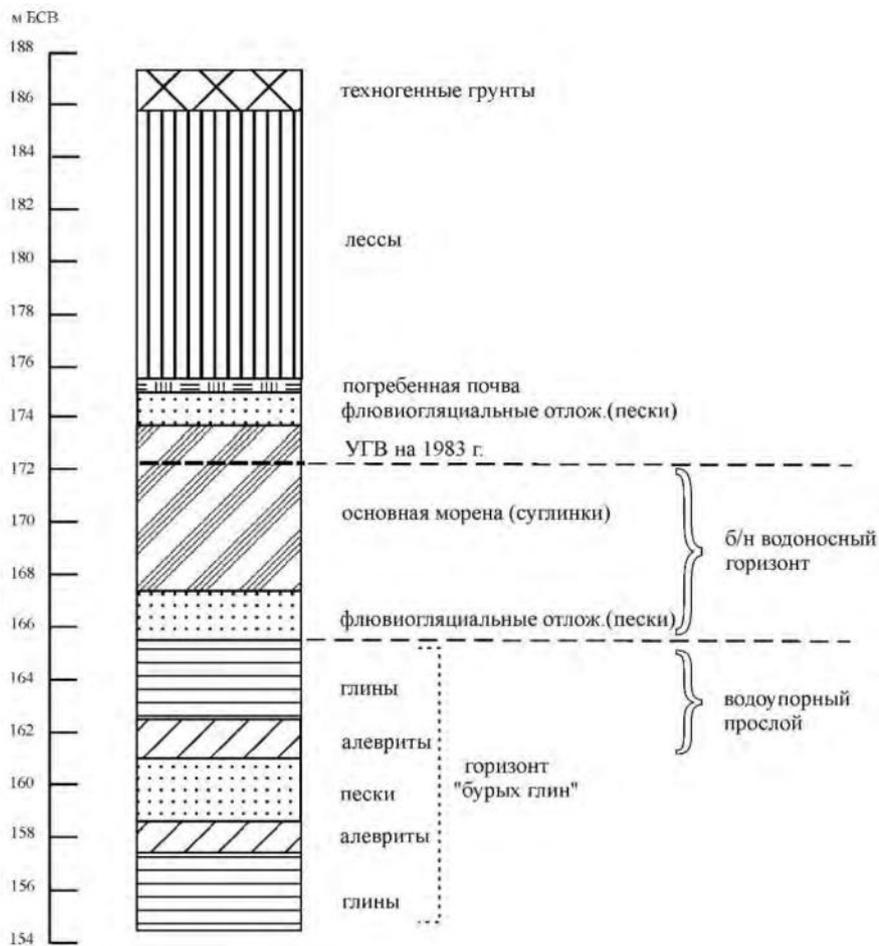
Overall, western (17.7%), north-western (13.5%) and northern (13.6%) winds are the most reiterative per annum. The average annual wind speed is 2.4 m/s. During the year the highest average wind speed (2.7-2.9 m/s) occurs in winter months. From May until August, it falls to its lowest indexes (2.0 m/s).

Orohydrography. The Property is located within the Dnieper River uplands covering central, northern and south-western districts of Kyiv. This is a flat land or slightly inclined to the west in loess rocks on the Neogene and Paleogene basis. The surface of the loess plateau is characterized with elevations of 170-198m high, up to 80 m deep and 1-2 km/sq. km thick erosion dissection.

In terms of geology, the territory of the Property and its buffer zone is located at the junction of two regional structures of the crystalline basement, such as the north-eastern slope of the Ukrainian sheet and south-western border of the Dnieper-Donets basin. The Dnieper area of faults on the crystalline basement in the north-western spread direction is the boundary between them.

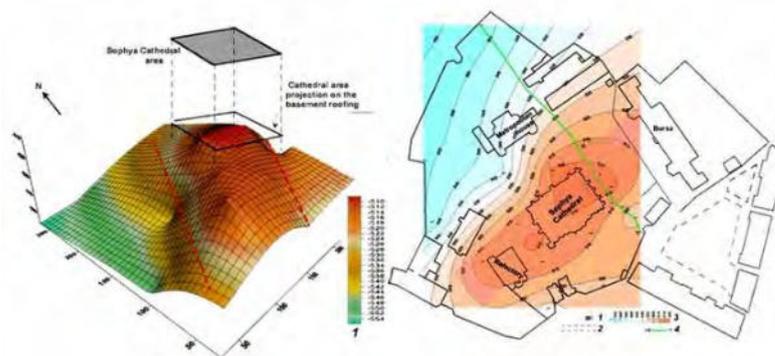
In terms of geomorphology, the ensemble of St. Sophia Cathedral is located within the Cis-Dneprian uplands, on a loess plateau. The area is inclined from south-west to north-east; the absolute marks of the daylight surface are within 186.4 to 191.6 m subsea.

The soil base of the Component “St. Sophia Cathedral and Related Monastic Buildings” is composed of deluvial-landslide subsoils up to 33 m in depth (interbedding of filled soils (up to 2-3.5 m), loess sandy loams (up to 9.7 m), loess-like loam soils (up to 2.5 m), fluvioglacial sand, sandy loams and loam soils (up to 10.5 m), brown clays mixed with freshwater loam soils and fine sand (up to 3 m)).



Geological cut of well in the territory of St. Sophia Cathedral ensemble

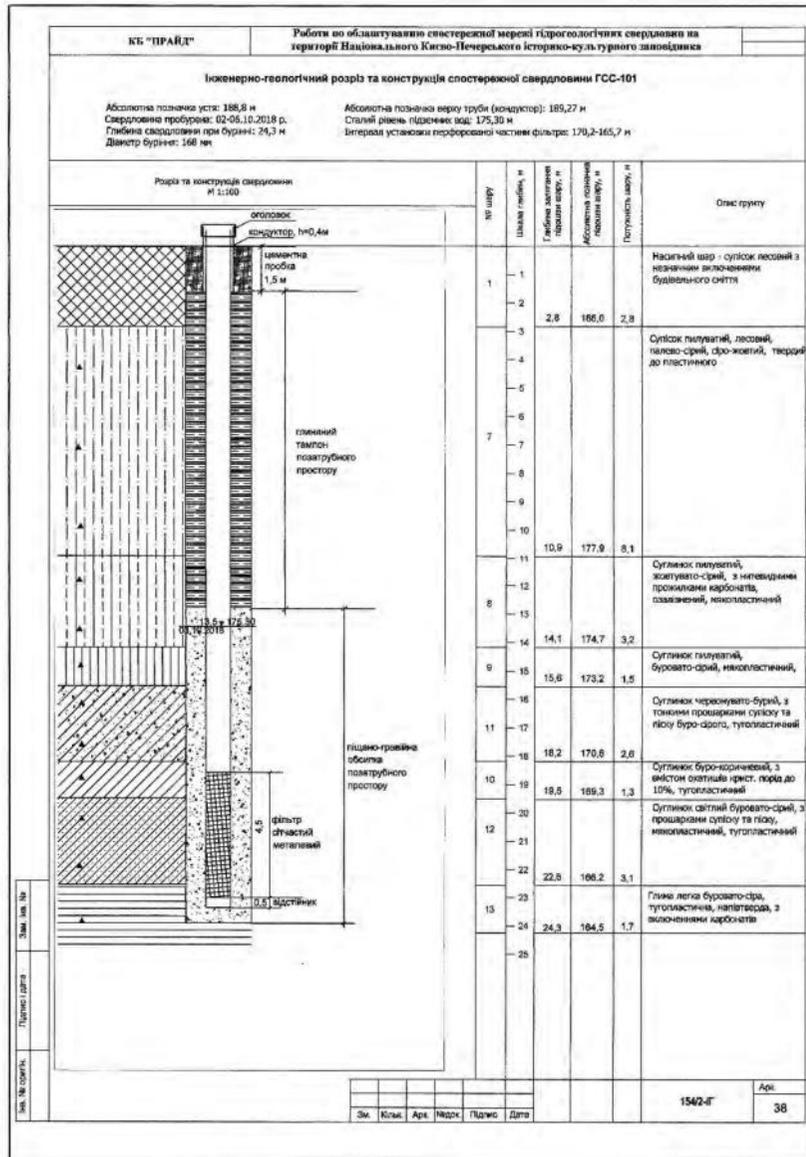
According to the geophysical surveys the areas of geodynamic activity were identified within the historic center of Kyiv, where the architectural ensemble of St. Sophia Cathedral is located. It was determined that its territory is located over tectonic faults, which activity is proved instrumentally. According to the available geophysical data, a local increase of the upper surface of rocks 50-60m high lies directly under the Cathedral building.



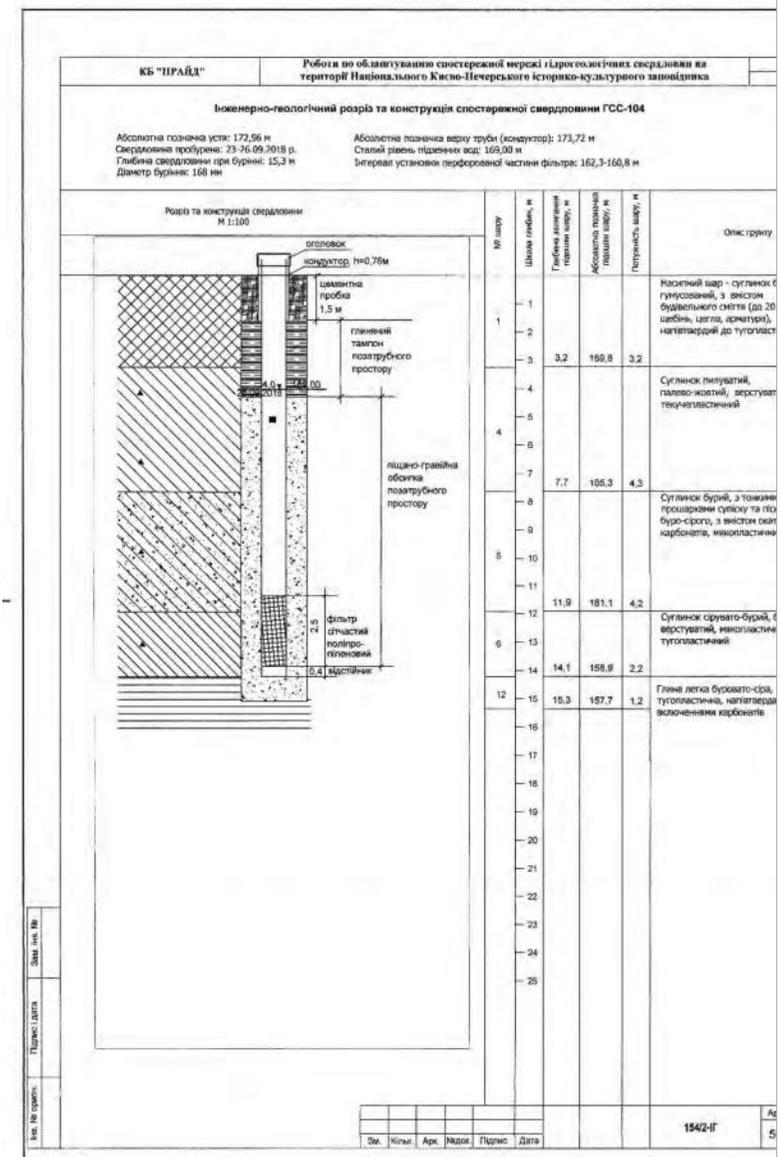
Structure of geological basis of St. Sophia Cathedral ensemble

In structural terms the surface of the area of the Kyiv-Pechersk Lavra, Church of the Savior at Berestove and their immediate surrounding represents a thick layer of loess rocks up to 15 m thick of a clear layering structure: the upper layer is represented with pale-yellow thin silty macroporous loess sandy loam with a capacity of 10-12 m followed by a layer of loess-like loam soil under it.

In the natural state loess soils are rather solid, but in case of additional loads or penetration of dampness from drainage systems, the loess sandy loam can be collapsed. It leads to the surface and structures deformation.



Geological cut of the well in the territory of the Upper Lavra of the Kyiv-Pechersk Lavra Component



Geological cut of the well in the territory of the Lower Lavra of the Kyiv-Pechersk Lavra Component

Hydrogeological conditions of the Property's territory

In the territory of the Component "Saint-Sophia Cathedral" the groundwaters of quaternary aquifer (in fluvio-glacial and moraine deposits) underlie at a depth of about 13-17m from the surface within 171-175 m subsea. The groundwater flow is directed eastward, to Sofiivska Square. The sole of subsidental loess sandy loam is at 2-5m above the aquifer. Temporary perched ground water occurs at two levels: at the depth of 1-4 m in filled soils and loess sandy loams and at a depth of 10-12 m in loess-like loam soils and buried soil and vegetation layer.

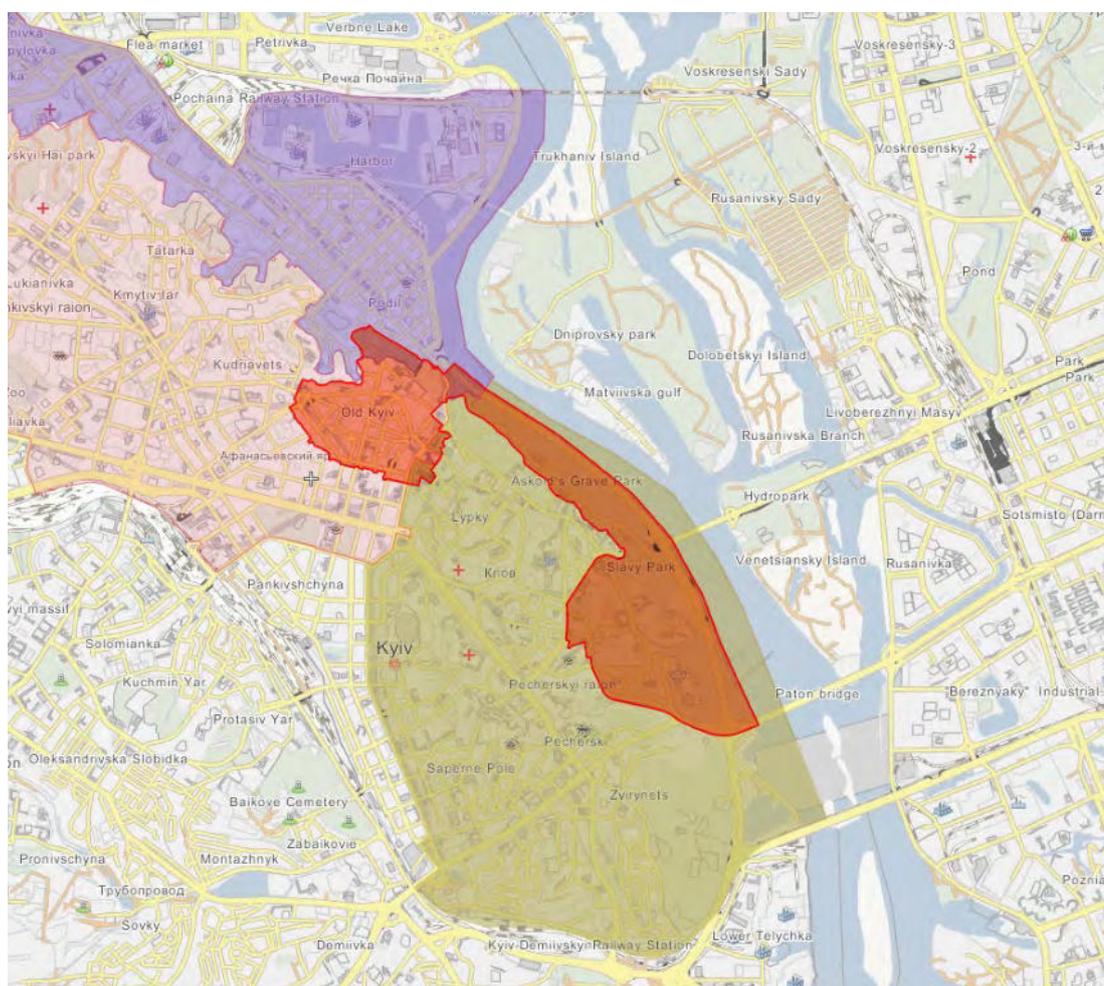
In the territory of the Components "Kyiv-Pechersk Lavra" and "Church of the Savior at Berestove" the hydrogeological conditions are characterized by groundwater aquifers. The highest groundwater level of 179-183 m subsea is identified near the Lavrska Street, and its lowest level of 160-163 m subsea is at the slope shoulder. In general, groundwater flows from north-west to south-east. As a rule, the aquifer lies on 10-15 m in depth; its deepest location is detected in the drainage system ring near the Dormition Cathedral.

The ground water regime undergoes a simultaneous impact of natural and technogenic factors, such as accumulation of surface runoff, leakage from water-carrying service lines and activity of deep tunnel, gallery and other drainage systems.

2.5. Anthropogenic characteristic

The territory of the Property and its Buffer zone is located within Shevchenkivskiyi, Pecherskyyi and Podilskyyi Administrative Districts (map) in the central area of the city of administrative, business, cultural, educational and tourist destination.

Name of district	Total area, ha	Area within the Buffer zone of the Property, ha
Shevchenkivskiyi	2660	110.02
Pecherskyyi	1955.48	342.85
Podilskyyi	3400	23.21



Layout Plan of the Property and its Buffer zone within administrative districts of Kyiv

	Territory of the Buffer zone of the Property		Territory of Pecherskyyi District
	Territory of Shevchenkivskiyi District		Territory of Podilskyyi District

Population size in the administrative districts as of 01.01.2020

Name of district	Permanent (<i>persons</i>)	Actual (<i>persons</i>)
Kyiv	2924971	2966278
Shevchenkivskyi	211694	220812
Pecherskyi	158363	163086
Podilskyi	204553	207963

The land plots of the Property are in communal ownership.

The land plot of the Component “St. Sophia Cathedral and Related Monastic Buildings” with a total area of 5,025 ha is in constant usage of the National Conservation Area “St. Sophia of Kyiv” according to the State Act On the Right of Permanent Use of Land Plot dated 31.08.2004, ЯЯ No. 080581. The transfer was carried out under the decision of the 4th Session of the 24th convocation of the Kyiv City Council of 24.04.2003 No. 411/571 “On the Granting and Withdrawal of Land Plots and Termination of Land Use Rights”.

The land plots of the Components “Kyiv-Pechersk Lavra” and “Church of the Savior at Berestove” with a total area of 23.5 hectares are in constant usage of the National Kyiv-Pechersk Historical and Cultural Preserve. The decision of the 3d session of the 7th convocation of the Kyiv City Council of 17.02.2015 No. 131/96 granted the National Kyiv-Pechersk Historical and Cultural Preserve the permission to develop a land management plan for the land allotment of 31.76 hectares for the upkeep and maintenance of its facilities.

Transport infrastructure of the Buffer zone of the Property

Streets. The Component “St. Sophia Cathedral and Related Monastic Buildings” is located in conditions of active transport loads, surrounded by Volodymyrska Street (of citywide importance), Striletska Street, Rylskyi and Georgiivskyi Lanes (of local importance). The basic transit transport movement occurs on the following streets: Volodymyrska, Velyka Zhytomyrska, Mykhailivska, Volodymyrskyi Passage, Khreshchatyk Street, Yaroslaviv Val and Prorizna Street, Volodymyrskyi Descent.

The territory of the Components “Kyiv-Pechersk Lavra” and “Church of the Savior at Berestove” is surrounded by important traffic arteries of the city: Naberezhne Highway, Lavrska Street (former Mazepa Street), Druzhby Narodiv Boulevard, Staronavodnitska Street (of citywide importance), Dnirpovskyi Descent, Parkova Road, Tsytaelna and Leipzygska Streets (of district status).

Squares. Within the Buffer zone of St. Sophia Cathedral large public spaces with a total area of 5.14 ha are situated: Sofiivska Square, which is directly adjacent to the ensemble from the north-east, Mykhaylivska Square and Independence Square. These are zones of increased public activity - places of meetings, rallies, public events.

Within the Buffer zone of the Kyiv-Pechersk Lavra and Church of the Savior at Berestove Slavy (Glory) Square and Andriy Pervozvannyi (St. Andrew the First-Called) Square are situated.

Parking. Authorized parking of vehicles in the immediate surroundings of the Property are provided only in Mykhaylivska Square, in Lavrska Street near the National Museum of the History of Ukraine in the Second World War and Andriy Pervozvannyi Square. All other parking lots are spontaneous.

Accessibility of the territory. The territories of the Property are accessible to visitors, pedestrians, tourist buses, public and private vehicles.

Within a walking distance from the Component “St. Sophia Cathedral” Kyiv subway stations “Maidan Nezalejnosti” of blue line and “Zoloti Vorota” of green line, public transport stops: trolleybus and bus stops as well as funicular, which links the Upper city with Podil District are located (Annex “*Functional zoning of the Buffer zone*”).

Within walking distance to the Components “Kyiv-Pechersk Lavra” and “Church of the Savior at Berestove” Kyiv subway stations “Arsenalna”, “Dnipro” of red line and “Pecherska” of green line are located. In their vicinity there are bus, trolleybus and shuttle bus stops.

Movement and parking of transport within the territory of Property’s components

The main entrance to the territory of the Component “St. Sophia Cathedral and Related Monastic Buildings” is made from Sofiivska Square through the gates of the first tier of the Bell Tower (18th century). The service entrance is made through the South Entrance Tower. (*Scheme of transport and pedestrian area of the ensemble*)

Arrivals to the territory are allowable through four gates: from Volodymyrska Street, through the arched passage in the South Entrance Tower; from Sofiivska Square, through the landed property on 20-22, Volodymyrska Street (via two gates: near the public services and Bursa (Seminary)) and from Striletska Street via the landed property on 7, Striletska Street.

Parking of service vehicles is provided in the service zones in south and northern courtyards. Parking of special vehicles is provided in the northern courtyard.

Parking space of tourist vehicles within the territory of the Conservation area is impossible due to the lack of spaces for parking and turning of buses, a small height and dimensions of the arched passage of the South Tower as well as the impossibility of the intensive use of passing through the territory of neighboring landed properties.

The territory of the Component “Kyiv-Pechersk Lavra” is divided into Upper Lavra, Lower Lavra and Gostynnyi Dvir (Hospitable Courtyard) respectively to the planning and spatial characteristics. Each of these territories is surrounded by monastery walls.

The main entrance to the territory of the Upper Lavra is made from Lavrska Street through the gate of the first tier of the Trinity Gate Church (the 12th c.). It is possible also to enter this territory through the gate of the first tier of the Church over the Economic Gate (the 17th-18th cc.) from Lavrskyi Lane, as well as from Blyzhniopecherna Street through the South (Holy) Gate.

The entry of vehicles into the territory of the Upper Lavra is possible from Lavrskyi Lane through the Church over the Economic Gate, in restricted mode through the South (Holy) Gate and through the Eastern Gate (Building No. 94-a), which is used as a emergency (auxiliary) entrance. In addition, next to the Church over the Economic Gate there is a gate in the monastery walls (building No. 82-a), through which the transport may arrive to the service zone.

Parking of the transport on the territory of the Upper Lavra is allowed when required on the Cathedral Square (during the church services on feast days) and near the building No. 15.

The main entrance to the territory of the Lower Lavra, where the monastery of the Holy Dormition Kyiv-Pechersk Lavra is located, is made from Lavrska Street through Blyzhniopecherna Street. Other entrances to this area are made through the gates near the Church of Life-Giving Spring (building No. 47) and the Northern Gate (building No. 93-a) through which the entry of vehicles is possible too.

The entrance to the territory of Gostynnyi Dvir is provided through the Western Gate (building No. 7 1-b) and from Blyzhniopecherna Street between buildings No. 54 and No. 68.

The passage from the Lower Territory to Gostynnyi Dvir is possible through the opening in the Defense Wall near the building No. 64.

Vehicle parking is allowed on Gostynnyi Dvir in garage.

The access to the territory of the Component “Church of the Savior at Berestove” is not restricted. Parking of vehicles is forbidden on this territory.

Engineering communications

In the territory of the Property and its Buffer zone the following utility lines pass: water supply system, wastewater sewerage, heat networks, cable networks, gas pipeline, low-current network and lighting. There are electrical sub-stations. On the territory of the Component “St. Sophia Cathedral” a transit low-pressure gas pipeline passes (*Annex Plan of engineering networks in the territory of the ensemble*).

All the buildings located within the territories of the components are connected to utility system.