

Anadolu Araştırmaları Anatolian Research

Research Article

Open Access

Appendix to the Byzantine Churches of Nikaia: Newly Discovered Building at the Iznik Tile Kilns Excavation



Ümmühan Melda Ermiş¹  & Vesile Belgin Demirsar Arlı¹ 

¹ Istanbul University, Faculty of Letters, Department of Art History, Istanbul, Türkiye

Abstract

Recent research and archaeological excavations in Iznik, known as Nikaia in ancient times, have uncovered significant new findings from the Byzantine period. One of these findings is from the Iznik Tile Kilns excavation, which has provided detailed information on Ottoman tile and ceramic production techniques and processes for many years. During the excavation seasons from 2019 to 2024, the remains of a previously unknown Byzantine religious building were discovered adjacent to the kilns, differing from the general context of the excavations. The excavation area was utilized by Ottoman-era tile and ceramic workshops for many years. First, the workshops and then the modern residences built in the region after the workshops lost their function ruined the Byzantine structure. The excavations suggest that the building was likely the main church, with a side chapel located to its north. The main church suffered significant destruction due to the tile kilns established on its site during the Ottoman period, though part of its apse remains intact. The side chapel features better-preserved architectural details, despite being partially damaged by modern houses built above it. This study offers preliminary evaluations of the building's architectural features and small finds, while also noting that the location of the newly discovered church aligns with that of the Kerameon Monastery, as indicated by information from Byzantine sources.

Keywords

Bithynia · Nikaia · Iznik · Byzantine · Church · Iznik Tile Kilns Excavation



Citation: Ermiş, Ü. M. & Demirsar Arlı, V. B. (2025). Appendix to the Byzantine Churches of Nikaia: Newly Discovered Building at the Iznik Tile Kilns Excavation. *Anadolu Araştırmaları-Anatolian Research*, (32), 254-272. <https://doi.org/10.26650/anar.32.1666996>

 This work is licensed under Creative Commons Attribution-NonCommercial 4.0 International License. 

 2025. Ermiş, Ü. M. & Demirsar Arlı, V. B.

 Corresponding author: Ümmühan Melda Ermiş umermis@istanbul.edu.tr



Introduction

Iznik played an important role during the Byzantine era, serving as the imperial capital for a time and hosting two of the most important ecumenical councils. In addition to the Byzantine churches previously documented in Iznik (Eyice, 1988; Peschlow, 2003; Peschlow, 2017: 203-216), a significant number have been identified through archaeological excavations and research. Excavations around the city walls of Iznik uncovered church remains on the city side of the Istanbul Gate (Çetinkaya, 2020: 146) and the Lefke Gate toward the city (Ermiş, 2009: 188). Another basilica-plan church was discovered in Lake Iznik, near the shoreline, with ongoing excavations (Şahin, 2022). Two additional churches have been found near each other: one on Şeyh Bedrettin Street¹ (Aslanapa, 1995: 548-549, taf.4-6; Ermiş, 2009: 172-184.) and the other on Deniz Street (Ermiş, 2009: 185-187; Niewöhner et al., 2010). The remains of another church were discovered during excavations behind the Nilüfer Hatun Imaret (Çetinkaya, 2020: 163).

The Iznik Tile Kilns Excavation site is located near the ancient city center, to the east of the Baths of Murad II and close to the Church of Hagia Sophia (Figure 1). The earliest excavations in the area were initiated by Oktay Aslanapa in 1964. This site was used as a tile and ceramic workshop from the 14th century, when the Ottomans captured Iznik, until the end of the 17th century. Between 2019 and 2024, excavations revealed the ruins of a Byzantine building alongside evidence of ceramic workshops and production from the Ottoman period. This indicates that the excavation area has a complex history of use by various civilizations for diverse purposes. This study presents and evaluates the excavation phase, architecture, and small finds of the newly discovered ecclesiastical building.

Figure 1

Aerial photograph of the Iznik Tile Kilns Excavation area and its surroundings



¹Evaluating these two churches in light of Cyril Mango's article on the Church of the Holy Fathers reveals that the ideal location for the Iznik Palace and the Church of the Holy Fathers is the northwest quarter of the city, located between the Istanbul Gate and the lake. For further details, see Mango, 2005; Ermiş, 2011.

The Newly Discovered Religious Building

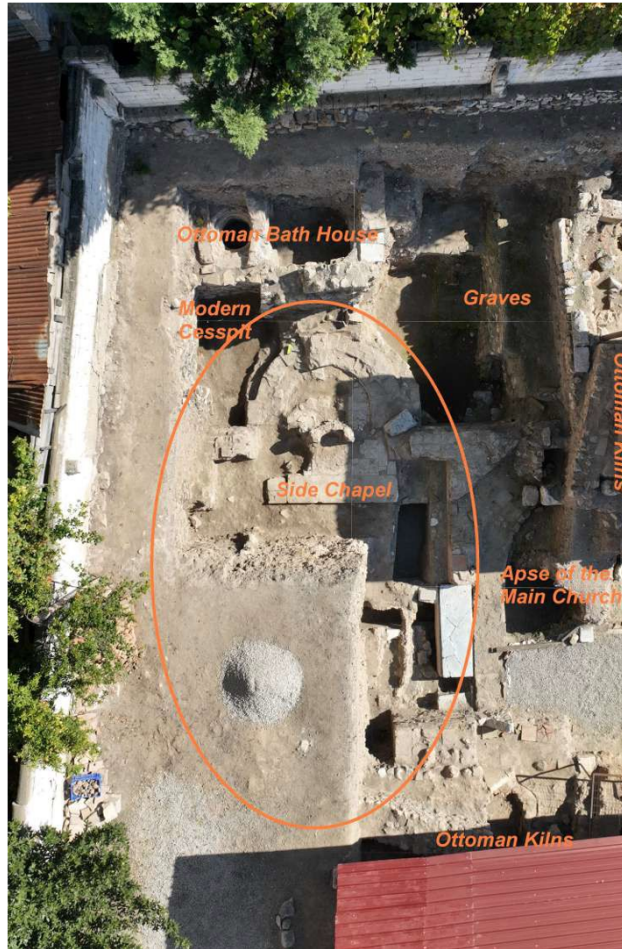
The excavations primarily focused on the Ottoman ceramic workshops; however, various findings prompted the simultaneous conduct of field studies with two objectives. During the 2019 field campaign, a chapel and a group of graves were discovered to the north of the Ottoman kilns. Although progress was slow during the excavation seasons from 2020 to 2022 due to the pandemic, evidence emerged suggesting that the remains unearthed in 2019 may have belonged to a side chapel of a church.

Aerial photographs of the archaeological site reveal a structure that curves eastward, located next to the south wall of the chapel. Architectural data obtained from the excavations conducted between 2019 and 2024 suggest that this structure, likely the main church, was damaged by the construction of a group of ceramic kilns in the area during the Ottoman period. Consequently, only a small section of its apse has survived to the present day at a depth of -272 cm. Excavations to the north of these remains uncovered the apse and naos of the chapel at a depth of -280 cm (Figure 2 and Figure 3).

The side chapel offers a wealth of information that surpasses what is available in the main church, including architectural details, graves, and small finds. Excavations were conducted in the chapel's apse and bema from 2019 to 2022, in the naos section in 2023, and in the narthex section in 2024 (Figure 4).

Figure 2

Aerial photograph of the remains, 2022



**Figure 3**

Plan of the remains of Byzantine buildings at the Iznik Tile Kilns Excavation site



Figure 4*View of the chapel from west to east, burials in the naos, 2023*

The chapel, which is oriented east-west, was damaged by Ottoman-era kilns and modern houses, particularly their foundations and cesspits. Excavations uncovered findings related to the naos and apse. However, the area of the chapel's narthex did not produce any relevant data, as modern house foundations and terracotta water pipes from the Turkish period have destroyed this section (Figure 5). The surviving apse and naos of the chapel measure 515 cm in width and 550 cm in length. Most of the uncovered walls are at ground level, with the highest section reaching approximately 50 cm.

There is a semicircular apse to the east of the chapel, featuring an interior measuring 190 × 130 cm. The floor of the semicircular apse has an in-situ opus sectile pavement, which has been largely destroyed today (Demirsar Arlı, 2024: 392). There is a central discus with a diameter of 85 centimeters in the front part of the apse area. Although the interior of the discus is fragmented, the outer line made of white marble is partially intact. In the corner spaces of the panel containing the discus, there is a decoration of triangular stones of different sizes, placed toward the center with pointed ends (Figure 6).

The remainder of the opus sectile floor is adorned with marble fragments shaped like squares, elongated hexagons, and triangles. The geometric composition covering the entire apse area exhibits a disordered pattern. In some sections, diamond-shaped pieces feature square marbles at their centers, while in others, elongated hexagons contain square pieces at the center. In the southern portion of the discus, triangular stones in blue, maroon, and green, are arranged in a cruciform pattern, with white marble elongated hexagons (Figure 7). The opus sectile pavement in the apse and bema section of the Church of Hagia Sophia in Iznik shares similarities with this design in both form and style².

²Although some scholars date the opus sectile floor of the apse to the 5th-6th century, it is more widely accepted that it dates to the 8th century, largely due to the damage caused by the earthquake of 740. For opinions on the opus sectile pavements of Hagia Sophia in Iznik, see Schneider, 1943, 15–16, taf.10, 12; Guidobaldi and Guiglia Guidobaldi, 1983, 334, note 658; Guiglia Guidobaldi, 1994, 650, note 22; Möllers, 1994, 51; Demiriz, 2002, 87; Pinatsi, 2006, 119–120.

Figure 5

The Ottoman and modern additions that damaged the narthex of the chapel, 2024



Figure 6

Apse of the chapel and opus sectile pavement, 2022



Figure 7*Detailed view of the opus sectile pavement, 2022*

The stylobate of the tempon, which separates the bema and naos of the chapel, consists of two spolia, with a total length of approximately 290 cm. One is the lid of a Roman sarcophagus, decorated with lotus and palmette motifs on one side (Figure 8). The other piece, inscribed with text, is a fragment of a 2nd century sarcophagus. Additionally, there is another inscribed fragment in the building, a piece of a 5th-6th centuries grave stele³, which was reused as spolia in the brick cist grave located next to the chapel's south wall (Figure 9).

Numerous graves were discovered on the floor of the chapel's naos during its excavation. Some graves had stone lids, and some had terracotta lids. In addition, the inner part of the hydraulic plastered water channel, extending from north to south under the naos floor and probably dating back to the Roman period, was used as a burial area. (Figure 4 and Figure 10).

³We sincerely thank Professor Mustafa Hamdi Sayar for providing information on the inscribed pieces.

Figure 8

Reused pieces, 2022



Figure 9

Grave stele fragment reused in the brick cist grave



Figure 10

Hydraulic plastered channel used as a burial area, 2023



A brick cist grave and a marble sarcophagus were found between the chapel and the main church, adjacent to the southern wall of the chapel's naos. The dimensions of the brick cist grave are 175 x 85 x 85 cm, and the marble sarcophagus measures 200 x 70 x 50 cm in size. The skeletons were coded and removed to allow the excavation to continue. Archaeothanatological analysis of skeletons in an archaeological context is crucial for understanding the processes of skeletonization and funerary interventions⁴. (Yılmaz, 2021). According to the archaeothanatological analysis based on the photographs, it was determined that at least two adult skeletons and one non-adult skeleton were present in the sarcophagus. This number may increase with further detailed biological anthropological analysis. The skull of the adult individual, added at the final stage of the sarcophagus, was displaced because of natural processes. All the other bones of the skeletal system were preserved in their anatomical position. At the same time, the bones of the non-adult individual adjacent to the adult skeleton also partially retained their anatomical arrangement. This evidence indicates that no additional individuals were interred in the tomb after these two burials, and the sarcophagus was closed and never reopened. Furthermore, an arrangement with four holes with a diameter of 20 cm was found at the bottom of the sarcophagus, reminiscent of the holy oil ritual observed in saints' graves or reliquaries. No objects or small finds were found in the sarcophagus and graves. (Figure 11).

During the 2015 and 2016 excavation seasons, two graves were identified in pits directly opened into the soil in the southeast direction of the chapel. The skeletons of adult individuals were laid flat on their backs in these graves. The preserved bones of the skeletons are in the context of primary burial and completely preserve their anatomical posture. The posture of the skeletons and the position of the bones indicate that the pit was filled with soil after the body was placed inside it. In addition, two tile graves were identified. With the discovery of the chapel and the likely main church in the following years, it was realized that these graves were also related to this religious structure (Figure 12). The convex roof tiles used in the graves, which were recovered intact during the excavation and measured 58 cm high, 33 cm wide at the top, 37 cm wide at the middle, 35 cm wide at the bottom, and 2.5 cm thick⁵.

Various Finds

Excavations conducted from 2019 to 2024 yielded cross fragments, cruciform reliquaries, pieces of copper alloy hangers and chains, glass sherds, coins, and ceramic chalices⁶. Due to the area's long history of varied uses, most of the small finds were recovered from the soil fill covering the chapel.

Three copper-alloy reliquary crosses were discovered, each shaped a Latin cross. In the complete reliquary, the cross is hinged at both the top and bottom, with a hanging loop at the top. Although corrosion complicates identification, the reliquary features engravings on both the front and back. The front side depicts the Crucifixion, with Christ dressed in a colobium. Above his head is a simple tabula ansata inscribed with the letters X. On the reverse side, there is an image of the Virgin Mary praying with her hands outstretched in the Orans pose (Figure 13).

One of the cross reliquaries has a broken upper vertical arm, resulting in the head of the figure in the orans gesture engraved on the reliquary being missing. The other reliquary cross, found during the excavation of the narthex, depicts the Virgin Mary in the orans position. Above the figure is the inscription *MP ΘΥ*, an abbreviation for *Mather Theou* (Mother of God) (Figure 14).

⁴We would like to thank Yasemin Yılmaz for archaeothanatological analyses.

⁵In his article, Özyiğit provided an example from the Iznik Museum with similar dimensions to this roof tile. For further details on the general characteristics of roof tiles from the 13th and 14th centuries, see Özyiğit, 1990: 167-170.

⁶This article does not focus on the small finds instead, they serve as supporting evidence for understanding the building's function, and dating. For this purpose, some of the well-preserved small finds from the context are included in this article, along with similar examples for comparison in the footnotes. Fragments of two ceramic chalices, decorated with the sgraffito technique and inscriptions, are excluded from this paper, as they will be discussed in detail in another study. See: Demirsar Arlı, 2022, 307, Figure 8b; Demirsar Arlı, 2023: 363, Figure 7a.

Figure 11
Sarcophagus



Figure 12

Simple earth graves and roof tile graves in the southeast of the chapel ruin



Figure 13

A reliquary cross depicting Christ and the Virgin Orans



Figure 14*Pieces of reliquary crosses***Figure 15***Pieces of different crosses*

These reliquary crosses have been observed in Byzantium from the ninth century onward. The layers from which the reliquary crosses emerged during excavations are crucial for dating the finds. The reliquary crosses discovered in the Iznik Tile Kilns area are estimated to date back to the 12th– 13th centuries⁷.

During the excavation of the chapel, four crosses made of copper alloy were discovered (Figure 15). Each cross arm extends and widens outward from the center. Three of the cross arm pieces feature flat circular discs in the corners, while the other has bulbs in the corners. One of the cross arms has unidentified markings. The edges of another cross arm have two rows of incised lines, and that arm features a small hole in its lower part. This hole, used to hang pandelia, indicates that this arm is the horizontal arm of the cross. Pandelia is an attribute indicating ceremonial use⁸ (Sandin, 1992: 10). The small, portable crosses found during excavations at the Iznik Tile Kilns may have been used for consecration or liturgy by the clergy (Galavaris, 1994: 96).

⁷For similar examples of incised decoration found in Iznik, see Pitarakis, 2006, 275, cat.no. 284; Aslanapa, Yetkin & Altun, 1989, 227, 243.

⁸For information on the types of crosses used in consecration or liturgy during the Byzantine period, see Cotsonis, 1994, 40; Sandin, 1992, 24.

Figure 16
Metal findings



Figure 17
Glass handle piece



Other metal finds include hangers, a chain, and a handle. The chain, made of copper alloy, was likely used to carry or hang items (Figure 16)⁹. Another metal piece, also crafted from copper alloy, is identified as a handle based on its shape, although the specific vessel it belongs to remains unknown. This semicircular sherd features a small cruciform handle at the apex, with the two sides of the circle flattened to project outward¹⁰. Additionally, three long metal rods with round sections are connected by a chain and have shorter hooks. These metal hangers, in the form of hooks, were commonly used in glass oil lamps¹¹ (Figure 16). Glass sherds were discovered during the excavation of the chapel. Only one of these fragments has a distinct handle and may have belonged to a glass lamp (Figure 17).

A pair of slightly corroded copper coins, believed to have been minted in Constantinople, was discovered during the excavations. The obverse of one coin depicts a bearded Christ wearing a tunic and a cross nimbus, with his right hand raised in a blessing position and “XC” visible. The reverse features the emperor seated

⁹For similar chain examples see Bulgurlu, 2018, 449, no. 81 and 82. Similar examples, found during the excavations at the Church of St. Nicholas in Demre, are dated to the 6th-7th century.

¹⁰For similar handle, see Bulgurlu, 2018, 438, no.48 and 49.

¹¹For similar examples, see Papanikola-Bakirtzi, 2002, 285, no. 299; Acara & Olcay, 1998, 249–266: 255, fig. 2f; Acara, 2018, 371–372, no. 36; Bulgurlu, 2018, 448, no.7; Olcay Uçkan & Çömezoglu Uzbek, 2018, 520; Demirel Gökalp, 2016, 257, cat.no. 11.

on a high-backed throne, holding a labarum in his right hand and a globus in his left. Based on the legible inscription on the left side of the reverse, this coin is attributed to Michael VIII Palaiologos¹² (Figure 18).

Figure 18

Copper trachea of Michael VIII Palaiologos

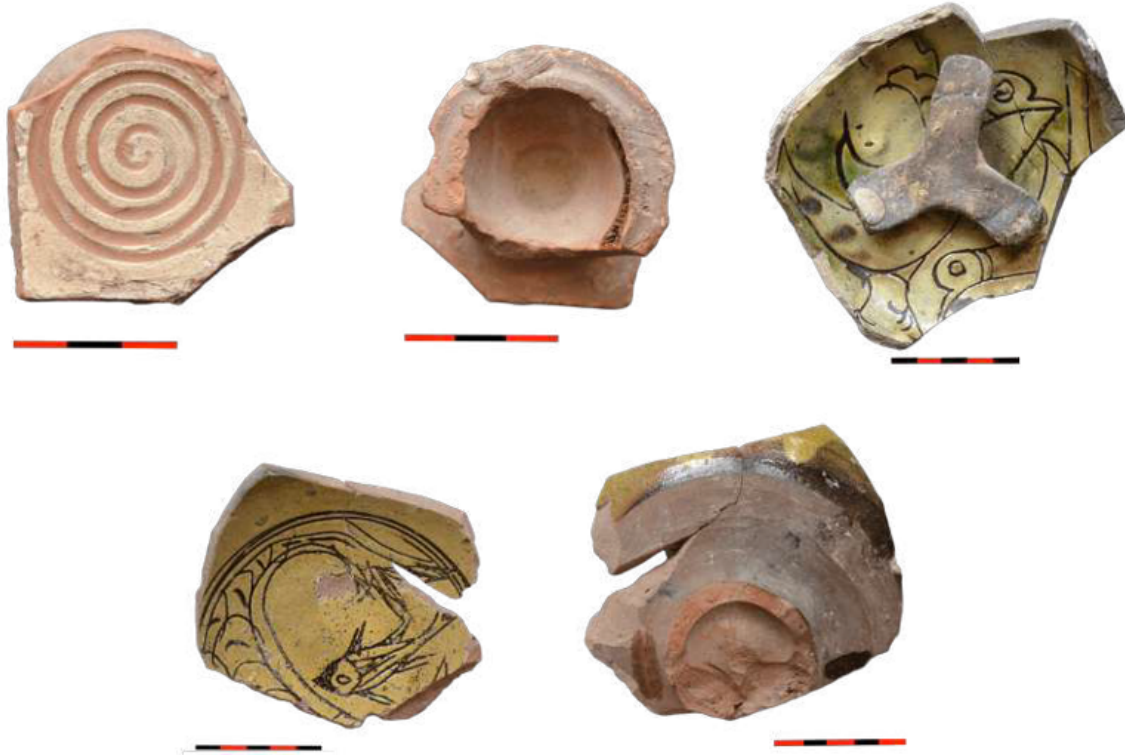


Figure 19

Coin of Michael VIII Palaiologos and Andronicus II



¹²For a similar Michael VIII copper trachea, see Bendall & Donald, 1974, cat.no.UC.4, 34; Bendall, 1988, 22, 85, cat.no.35; Lianta, 2009, 201. cat.no. 546.

Figure 20*Samples indicating Byzantine ceramic production in the Iznik Tile Kilns Excavation*

The obverse of the other coin shows an elaborate labarum resting on a crescent-shaped cushion, while the reverse displays two emperors holding a patriarchal cross between them¹³. This coin is dated to the reign of Emperor Michael VIII Palaiologos and Andronicus II (Figure 19).

The reuse of the area where the church and chapel were located during the Ottoman and modern periods led to a mixing of cultural layers, disrupting the stratigraphy. Consequently, the Byzantine building did not survive in its original form due to subsequent construction activities. This situation also affected small finds. Small artifacts discovered during the excavation of the chapel in the Iznik Tile Kilns area differ from other findings in the excavation site. As a result, the dating of these artifacts was based on their form, decoration, and the location of the chapel and layer of discovery. These findings are generally dated to the 12th-13th centuries.

Discussion Concerning the Definition of The Building

The excavation area has been inhabited for centuries. The oldest evidence found at the site is the hypocaust system of a bathhouse, likely dating from the Roman period.¹⁴ Additionally, as previously mentioned, the graves in the naos of the chapel were built around a hydraulic plastered water channel from an earlier period. It is possible that during the Byzantine period, ceramic workshops were established in this area to utilize the water system. Excavations of the Iznik tile kilns have unearthed numerous unglazed and unfinished ceramic vessels, some of which feature tripod stilts on the interior of their bases. The existence of these vessels indicates that they were produced during the Byzantine period, indicating that the area

¹³For similar coins, see Grierson, 1999, cat.no.206-211, plate 13.

¹⁴At this point, it is necessary to mention Strabo. Strabo provides information on Iznik during the Hellenistic period and notes that four of the city's gates could be seen from the Gymnasium, which was located in the city centre (Strabo, 1961, 12.4.7, 463-465). The location of the Iznik Tile Kilns Excavation site aligns with this description.

functioned as a workshop (Demirsar Arlı & Altun, 2009: 367, **Figure 11 – Figure 12**; Demirsar Arlı, 2017: 376, **Figure 9**; Demirsar Arlı, 2018: 449–450, **Figure 11**)¹⁵ (**Figure 20**).

Figure 21

Residences in the area before expropriation



After the Ottomans settled in Iznik, the city emerged as a significant center for tile and ceramic production for the Ottoman Empire. The Ottomans likely selected this area for their workshops due to the presence of existing Byzantine workshops. Once the Ottoman workshops ceased functioning, houses were constructed on the site in the first half of the 20th century. Following their expropriation in 2013, these buildings were safely demolished, and excavation work began in the area (**Figure 21**). In excavation seasons from 2019-2024, the remains of a church and chapel were discovered. Sewage pits from the houses caused some damage to the northeastern corner of the chapel's apse. Additionally, The excavation revealed the remains of a small Ottoman bathhouse to the east of the apse, which was likely used by craftsmen working in the workshops (**Figure 2**). These findings indicate that the area has a complex history with multiple archaeological layers.

Comparing this new religious building with the churches known to have existed in Iznik during the Byzantine period has yielded important insights. Historical sources indicate that there were numerous churches in Iznik during that time. One notable example was the Monastery of the Potters (Kerameon), named for its location in the city's pottery district. A letter of condolence sent by Theodore of Studios to Joseph, (Theodori Studitae Opera Omnia, 1860, 1633–1636), the prelate of the Kerameon Monastery, on the death of Peter¹⁶, Bishop of Nicaea on 11 September 826 confirms that the Monastery of the Potters was situated in the city center of Iznik in the 9th century (Janin, 1975, 114). St. Peter, an important figure among iconophiles, was

¹⁵For publications dealing with the production of ceramics in Iznik during the Byzantine period, see François, 1997: 411-442; Waksman & François, 2004: 629-724: 654, 669; Özkul Fındık, 2014: 84-85, 149-155; Meriç & Ekin Meriç, 2021: 49-66.

¹⁶Bishop Peter was dismissed for being an iconophile, and Inger was appointed to the position in 815. see Foss & Tulchin, 1996, 25.

buried in this monastery upon his death¹⁷.

When evaluating the evidence of Byzantine pottery production alongside information about the churches mentioned in Byzantine sources, it becomes clear that the remains of a probable church and its chapel unearthed during the Iznik Tile Kilns Excavation align with the location of the Monastery of the Potters (Kerameon). Most Byzantine churches in Iznik contain graves either within the interior or substructure. From the Middle Byzantine period onwards, burial areas within the city walls expanded, and burials became increasingly concentrated in monasteries. Peschlow observes that, following the early Byzantine period, the number of graves around churches in Iznik increased, suggesting that these churches were used as burial sites (Peschlow, 2003: 214; Peschlow, 2017: 208– 209). If we consider the concentration of graves found on both sides inside and outside the chapel, as well as between the chapel and the church, it is reasonable to suggest that if this newly discovered chapel is the burial site of Bishop Peter, the faithful seeking his intercession would desire to be buried there.

This religious building, despite stratigraphic challenges and poor architectural condition, provides valuable data regarding architectural remains, small finds, and graves. Therefore, it can be concluded that the early Byzantine church and chapel remained in existence until the 13th century, as supported by these architectural remains, small finds, and graves.



Peer Review	Externally peer-reviewed.
Author Contributions	
Conflict of Interest	The author has no conflict of interest to declare.
Grant Support	This study was funded by Scientific Research Projects Coordination Unit of Istanbul University. Project number: SBA-2019-34257

Author Details

Ümmühan Melda Ermiş

¹ Istanbul University, Faculty of Letters, Department of Art History, Istanbul, Türkiye

0000-0003-0176-2309 umermis@istanbul.edu.tr

Vesile Belgin Demirsar Arlı

¹ Istanbul University, Faculty of Letters, Department of Art History, Istanbul, Türkiye

0000-0002-2656-9962

References

- Acara M. & Olcay, Y. (1998). Bizans Döneminde Aydınlatma Düzeni ve Demre Aziz Nikolaos Kilisesi'nde Kullanılan Aydınlatma Gereçleri. *Adalya, II*, 249–266.
- Acara, M. (2018). Maden Buluntular 1989-1999. In S. Doğan – E. F. Fındık (Eds.), *Aziz Nikolaos Kilisesi Kazıları 1989-2009* (pp.353-380). İstanbul: Homer Kitabevi.
- Aslanapa, O., Yetkin, Ş. & Altun, A. (1989). *Iznik Çini Fırınları Kazısı II. Dönem 1981–1988*. İstanbul: İstanbul Araştırma Merkezi.
- Aslanapa, O. (1995). Iznik Çini Fırınları Kazısı 1992 Yılı Çalışmaları. *Kazı Sonuçları Toplantısı 15/2*, 547-563.
- Bendall, S. & Donald, P. J. (1974). *The Billion Trachea of Michael VIII Palaeologos 1258–1282*. London.
- Bendall, S. (1988). *A Private Collection of Palaeologan Coins*. Wolverhampton.
- Bulgurlu, V. (2018). Maden Buluntular 2000-2009. In S. Doğan – E. F. Fındık (Eds.), *Aziz Nikolaos Kilisesi Kazıları 1989-2009* (pp.381-456). İstanbul: Homer Kitabevi.

¹⁷Çetinkaya suggests that the ruins of the church behind the Imaret of Nilüfer Hatun are the site of the Kerameon Monastery. However, excavations in the area yielded no evidence of Byzantine ceramic production. Çetinkaya's interpretation is based on the discovery of some water pipes in the vicinity; see Çetinkaya, 2020, 166.



- Cotsonis, J. A. (1994). *Byzantine Figural Processional Crosses*. Washington DC: Dumbarton Oaks.
- Çetinkaya, H. (2020). *Kuruluşundan Osmanlıya İznik*, Bursa: Dora Basım Yayın Dağıtım.
- Demirel Gökalp, Z. (2016). Kütahya Müzesinden Bir Grup Metal Eser. *Kütahya Müzesi 2015 Yıllığı*, III, 241-272.
- Demiriz, Y. (2002). *Interlaced Byzantine mosaic pavements*. İstanbul.
- Demirsar Arlı, V. B. & Altun A. (2009). İznik Çini Fırınları Kazısı 2007 Yılı Çalışmaları. *Kazı Sonuçları Toplantısı 30/1*, 359-376.
- Demirsar Arlı, V. B. (2017). İznik Çini Fırınları Kazısı 2015 Yılı Çalışmaları. *Kazı Sonuçları Toplantısı 38/ 2*, 371-388.
- Demirsar Arlı, V. B. (2018). İznik Çini Fırınları Kazısı 2016 Yılı Çalışmaları. *Kazı Sonuçları Toplantısı 39/3*, 445-459.
- Demirsar Arlı, V. B. (2022). İznik Çini Fırınları Kazısı 2019-2020 Yılı Çalışmaları. *2019-2020 Yılı Kazı Çalışmaları 1*, 303-322.
- Demirsar Arlı, V. B. (2023). İznik Çini Fırınları Kazısı 2021 Yılı Çalışmaları. *Kazı Sonuçları Toplantısı 42/5*, 361-374.
- Demirsar Arlı, V. B. (2024). İznik Çini Fırınları Kazısı 2022 Yılı Çalışmaları. *Kazı Sonuçları Toplantısı 43/ 4*, 391-406.
- Ermiş, Ü. M. (2009). *İznik ve Çevresi Bizans Devri Mimari Faaliyetinin Değerlendirilmesi*. (unpublished doctoral dissertation). İstanbul Üniversitesi.
- Ermiş, Ü. M. (2011). İznik Sarayı Çevresindeki Kiliseler. In M. Şahin & İ. H. Mert (Eds.), *1. Uluslararası İznik I. Konsil Senato Sarayı'nın Lokalizasyonu Çalıştayı Bildirileri* (pp.79-103). Bursa.
- Eyice, S. (1988). *İznik Tarihçesi ve Eski Eserleri*, İstanbul: Sanat Tarihi Araştırmaları Dergisi.
- Foss, C. & Tulchin, J. (1996). *Nicaea: A Byzantine Capital and Its Praises*. Brookline: Hellenic College Press.
- François, V. (1997). Les ateliers de céramique byzantine de Nicée/Iznik et leur production (Xe – début XIVe siècle). *Bulletin de Correspondance Hellénique* 121-1, 411- 442.
- Galavaris, G. (1994). The Cross in the Book of Ceremonies by Constantine Porphyrogenitus, In *Thymiama ste mneme tes Laskarinas Boura (Studies in Memory of Laskarina Boura)*, I. (pp.95-99).Athens: Benaki Museum.
- Grierson, P. (1999). *Michael VIII to Constantine XI 1258-1453, Catalogue of the Byzantine Coins in the Dumbarton Oaks Collection and in the Whittemore Collection*. A. R. Bellinger and P. Grierson (Eds.), Vol. 5, Part 2, Washington D.C.
- Guidobaldi, F. & Guiglia Guidobaldi, A. (1983). *Pavimenti marmorei di Roma dal IV al IX secolo*. Roma.
- Guiglia Guidobaldi, A. (1994). L'opus sectile pavimentale in area Bizantina. In *Atti del 1. Colloquio dell'Associazione Italiana per lo Studio e la Conservazione del Mosaico (AISCUM)*.(pp. 643-663). Ravenna.
- Janin, R. (1975). *Les églises et les Monastères des Grands Centers Byzantins (Bithynie, Hellespont, Latros, Galèsios, Trébizonde, Athènes, Thessalonique)*. Paris: Institut Français d'études Byzantines.
- Lianta, E. (2009). *Late Byzantine Coins 1204-1453 in The Ashmolean Museum*. London: University of Oxford.
- Mango, C. (2005). The Meeting-Place of the First Ecumenical Council and the Church of the Holy Fathers at Nicaea, *Deltion tes Christianikes Archaialogikes Etaireias*, 26, 27-34.
- Meriç Z. A. & Ekin Meriç, A. (2021). 2012-2019 Yılları Arasında İznik Roma Tiyatrosu'nda Bulunan Bizans Sırlı Seramiklerinin Değerlendirilmesi. *SDÜ Fen Edebiyat Fakültesi Sosyal Bilimler Dergisi* 54, 49-66.
- Möllers, S. (1994). *Die Hagia Sophia in Iznik/Nikaia*. Alfter.
- Niewöhner, P., Rabbel, W., Stümpel, H., Pašteka R. & Barış, Ş. (2010). Eine neu entdeckte byzantinische Kirche in Iznik/Nikaia. *Istanbul Mitteilungen*, 60, 475-490.
- Olcaç Uçkan B.Y. & Çömezöğlu Uzbek, Ö. (2018). Cam Buluntular. In S. Doğan – E. F. Findık (Eds.), *Aziz Nikolaos Kilisesi Kazıları 1989-2009* (pp.513-551). İstanbul: Homer Kitabevi.
- Özkul Findık, N. (2014). *İznik Sırlı Seramikleri – Roma Tiyatrosu Kazısı (1980-1995)*. Ankara: Bilgin Kültür Sanat Yayınları.
- Özyiğit, Ö. (1990). Alaturka Kiremidin Oluşumu. *Sanat Tarihi Dergisi*, 5/5, 149-179.
- Papanikola-Bakirtzi, D. (ed.) (2002). *Everyday Life in Byzantium*, Athens.
- Peschlow, U. (2003). The Churches of Nicaea / Iznik. In I. Akbaygil et al. (Eds.), *Iznik Throughout History* (pp.201- 218). İstanbul: Türkiye İş Bankası Yayınları.
- Peschlow, U. (2017). Nicaea. In P. Niewöhner (Ed.), *The Archaeology of Byzantine Anatolia, From the End of Late Antiquity until the Coming of the Turks* (pp.203-216). New York: Oxford University Press.
- Pinatsi, C. (2006). New observation on the pavement of the church of Hagia Sophia in Nicaea. *Byzantinische Zeitschrift*, 99, 119-126.
- Pitarakis, B. (2006). *Les Croix-Reliquaires Pectorales Byzantines en Bronze*. Paris: Picard.
- Sandin, K. A. (1992). *Middle Byzantine bronze crosses of intermediate size: Form, use and meaning*. (Doctoral dissertation, The State University of New Jersey).
- Schneider, A. M. (1943). *Die römischen und byzantinischen Denkmäler von İznik-Nicaea*. Berlin.



- Strabo, (1961). *Geography*. H. L. Jones, (Trans.) Vol.5, London: Loeb Classical Library.
- Şahin, M. (2022). Underwater Excavation at the Basilica Church in İznik Lake – 2019. *International Journal of Environment and Geoinformatics*, 9-2, 71-80.
- Theodori Studitae, (1860). *Theodori Studitae Opera Omnia, Epistolae*. Migne (Ed.), PG 99, Paris.
- Yılmaz, Y. (2021). Arkeotanatoloji ve Anadolu Arkeolojisi'nde uygulanması: Tekli birincil gömütler. *Antropoloji*, 41, 156–171.
- Waksman, Y. & François, V. (2004). Vers une redéfinition typologique et analytique des céramiques du type Zeuxippus Ware. *Bulletin de Correspondance Hellénique* 128– 129 / 2.1, 629–724.

