Byzantine Octagon Domed Churches of the 11th Century and the Roman Imperial Architecture

Octagon domed churches stand apart as a distinguished phenomenon in the Middle Byzantine architecture, bringing up a number of significant, but still unresolved issues for scholars. The dates and development of the two discerned architectural types, those of compact octagon domed church and compound octagon domed church are still being debated. Historians struggle to find out the starting point and the mechanisms of their almost sudden emergence and propose lots of options, very tempting but not exhaustive. In this paper I would like to propose yet another important area to investigate, which other scholars had tended to overlook, that is of Imperial Roman architecture.

Historiography devoted to the Byzantine octagon domed churches assigned to the 11th century has focused on searching for suitable prototypes for vaulting construction methods, i.e. the transition between the walls of naos and dome. Admitting that there are no preserved monuments with similar architectural solution in the earlier Byzantine building practice, the scholars began to look outside the Byzantine Empire proper. Thus, Th. Mathews, C. Mango and A. Komech opted for Armenian churches with squinches, from St. Hrip’sime in Vagharshapat in the 7th century to the church of Holy Cross at Aght’amar in the 10th century [3, p. 86–92; 22, p. 222–224; 25]. R. Ousterhout pointed out special ties with the contemporaneous Arab architecture, especially with the buildings where expanded corner conches are used to make the transition, like the mosque of al-Hakim in Cairo presents. Besides, R. Ousterhout considered the church of the Holy Sepulchre as a medium for the translation of this constructional device into the katholikon of Nea Moni in Chios [27; 28]. R. Krautheimer sided with the Greek scholars, Ch. Bouras and P. Vocotopoulos [29, p. 560] in their opinion that domed octagon plans were rooted in the Byzantine tradition. However, the former scholar linked their structural principle and the spatial design to the churches of Justinian I and monuments built after him [19, p. 340], while Ch. Bouras argued for earlier models, like tentatively reconstructed “lesser” church of St. Apostles, which he believed was the Mausoleum of Constantine the Great [7, p. 139–145]. Like R. Krautheimer, A. Komech considered implementation of squinches just as introducing an absorbed borderland element of construction which helped the Byzantine masters to conceive the old magnificent structures. However, he admitted that the nature of the architectural entirety was essentially Byzantine in line with the genuine architectural evolution [3, p. 83–101].

In this paper I would like to argue for the last opinion by expanding the selection of monuments for juxtaposition purposes to the period of Tetrarchy or even further to the times of the wholly united Roman Empire.
First of all, if we compare the octagon domed types with other Byzantine church designs, the most striking feature of the former would be their expanded inner space. The octagon domed churches of the Middle Byzantine architecture provided the largest diameter of a cupola, thus allowing to cover a wider space than it was possible for a cross-in-square, or even a cross domed church. Total integrity of the space was achieved. This brings one to a concept of the Roman vaulted architecture. W. MacDonald stated that quintessential features of the style of Roman Imperial architecture were its preoccupation with the embracing and focusing qualities of circular lines and surfaces, its overwhelming sense of place and its use of three dimensions as the boundary of architectural space. The Roman geometry of design is aimed at creation of the impression of a seamless envelope of space [21, p. 167–171]. According to the scholar: “In the vaulted style the evolution of traditional directionalism and focus was brought to its logical conclusion. One was now either guided toward a focal concavity or brought into an axially terminal space, a large and well-lighted architectural volume from which the natural world was excluded, where enveloping and radially focused surfaces suggested permanence, stability, and security” [21, p. 171].

The quotation of the historian of the Roman architecture may well be followed by that of the historian of the Old Russian one. That is how A. Komech described the katholikon of the monastery of Hosios Loukas: “This architectural Cosmos is mutably refined in developing its glittering shell <…>. However, the same Cosmos embodies the idea of eternity and constancy, it is perfect, rigorous, and authoritatively regular in representing its main enveloping domical and vaulting design. The sense of a flexible dynamic partition in the metropolitan monuments is always accompanied by comprehension, general for the Byzantine art as a whole, of the architectural organism as a structure which is constant and eternally existing in its regularity. There is no development in time and space — it is overcome by a sense of fulfillment, accomplishment, presence” [3, p. 99].

J. Ward-Perkins admitted that this shift of emphasis from the solids of the trabeated architecture to the voids of the vaulted style came almost of a sudden during the so-called “Roman Architectural Revolution”. This change had occurred already in the octagonal hall of Nero’s Domus Aurea and was fully embodied in Hadrian's Pantheon [31, p. 97–120]. Thus, according to J. Ward-Perkins, Rome invented the architecture to which the concept of interior space was fundamental: “Walls and vaults are no longer the distinct contrasting factors of a clearly stated structural equation, but the complementary and merging elements of an envelope enclosing a shape. Moreover, the shape is elusive” [31, p. 100]. This definition of the inner space may well be attributed to a Byzantine church of the octagon domed type; one should add only the dominant role of a dome as a starting point for all subordinate architectural elements.

The analysis of the issue from the point of view of iconography with a need to look upon the “content” of the vaulted centralized pattern may yield even more data for comparison of the two architectural traditions [13; 18; 20; 30]. Here, one can single out several connotations which the centralized Christian buildings were designed to convey — the idea of a mausoleum, martyrrium or baptistery and the idea of a palace aula or premises included in thermae.

The plausibility of the first notion was proven by R. Krautheimer, who argued for continuity in tradition from Roman mausolea and Christian martyria, both using centralized design,
independent of which was the actual form: whether it was a 
rotunda or an octagon [18]. The scholar assumed that a circle 
and a polygon were interchangeable for a medieval beholder. 
Besides, an octagonal pattern was in itself the symbol of resur-
rection and regeneration, while a circle — the symbol of eter-
nity [18, p. 5–6, 29]. Thus, St. Gregory of Nyssa described 
the design of the martyrium at Nyssa: “The church is in the form 
of a cross and naturally consists of four bays, one on each side. 
These bays come into contact with one another in a manner 
that is inherent in the cruciform shape. Inscribed in the cross 
is a circle cut by eight angles: I have called the octagonal shape 
a circle because it is rounded in such a way that the four sides 
of the octagon that are opposite one another on the main axes (ek diametrón) connect by means of arches the central circle to 
the four adjoining bays. The other four sides of the octagon, 
which lie between the rectangular bays, do not extend in an 
even line towards the bays, but each one of them will encom-
pass a semicircle having at the top a conch-like form leaning 
on an arch; so that, all together, there will be eight arches by 
means of which the squares and semicircles will parallel-wise 
be conjoined to the central space” [24, p. 27–28].

Indeed, Roman mausolea of the 3rd–5th centuries use all the different patterns from simple 
round or octagonal plan with or without niches to complicated forms with inner or outer 
ambulatories. One may recall the following Roman Imperial mausolea: mausoleum of Di-
ocletian in Split (completed before 312 CE), mausoleum of Maximian (?) at San Vittore in 
Milan (ca. 300), mausoleum of Galerius in Romuliana (Gamzigrad) (ca 305–311), mausolea 
of Maxentius (ca 307–312), Helena (ca 315–326), Constantina (ca 340–360) and Honorius 
(ca 400–415), all in Rome [17].

Constantine the Great built a mausoleum for himself in Constantinople. Unfortunately, 
there is no archaeological evidence of the edifice, only written descriptions remained. They 
do not allow us to propose a single verified version of the initial design of the complex. The 
majority of scholars reconstruct the mausoleum of the first Christian emperor as a rotunda, 
though C. Mango did not exclude the option of it being an octagon [23]. The marble sar-
cophagi were placed along the perimeter of the inner walls. Mausoleum of Constantine I may 
have been adjoined to the eastern part of the Holy Apostles cathedral. This assumption is in 
line with the tradition of Roman Imperial mausolea erected for members of families of the 
first Christian emperors: the mausoleum of Helena abutted the eastern end of the basilica of 
Ss. Marcellinus and Petrus, the mausoleum of Constantina was adjoined to the southern part 
of the basilica of St. Agnes, the mausoleum of Honorius was connected with the southern 
transept of the Old basilica of St. Peter [17].

With the help of the written sources Ph. Grierson pointed out three periods of using the 
mausoleum of Constantine I by the Byzantine emperors. Initially there were three sarcophagi: 
the tomb of Constantine I in the east, the tombs of Constantius II and Theodosius I in the
south and in the north respectively. After the burial of Theodosius I in 395 the mausoleum was considered “full”, so Arcadius and Theodosius II were buried in another place in the cathedral of the Holy Apostles, in the so called “South Stoa”, while Julian and Jovian were buried in the “North Stoa”. The sarcophagi of Leo I, Marcian, Zeno and Anastadius again were brought to the mausoleum of Constantine I, they were allocated, probably, amongst the first three tombs, preserving the symmetrical design. Upon this, however, the new scheme exhausted itself once again. Justinian I build his own “heroon” at the cathedral of the Holy Apostles, having chosen a cruciform shape for the edifice. In the 6th–9th centuries it turned to be the place of burial for emperors and members of their families, excluding those, who preferred to be interred in the monasteries [14].

The third period is extremely important for this investigation. Most likely it was Basil I who decided to re-open the mausoleum of Constantine I. Sarcophagus of Michael III, co-ruler of Basil I, and twelve sarcophagi of the rulers from the Macedonian dynasty were added to the seven tombs of the early Byzantine emperors. The last tomb, which could be placed by the inner walls, was that of Theophano (died in 975), wife of Romanus I and then of Nicephorus Phokas [13, p. 26–29]. Constantine VIII in 1028 became the last emperor to be buried in the “heroon” of Constantine I, at that his tomb had to be placed in the center of the building, since all other spots by the walls were occupied [14, p. 59].

Thus, the problem of “overcrowding” of the dynastic mausoleum had been crucial for the Byzantine rulers since the second half of the 10th century, but it was at the beginning of the 11th century, when the tradition of entombment in the mausoleum of Constantine I was finally abandoned.

One may single out Basil I and Basil II as the key personalities for the last stage of the history of the mausoleum. Basil I was presumably the one who re-launched the tradition of burials in the “heroon”, while Basil II decided to end it for one reason or another. Possibly he did not dare to place his tomb in the center of the mausoleum, as would have dared his younger brother Constantine VIII, or had other motives, but the fact remains: Basil II asked to be buried in the church of St. John the Apostle in Hebdomon. In the Macedonian period only Romanus Lekapenos and John Zimisces, the usurpers, were buried at other sites. Written sources attest the monastery of Myrelaion as the place of burial of the former [4, p. 271], the tomb of the latter stood in the chapel of the Savior in the Chalkê [6, p. 37, 225].

It was Basil I who initiated the re-establishment of a Byzantine ruler’s status, which had been impaired by the Iconoclast emperors. This was necessary to achieve the lost status quo with the Church, and also implied renewal of the concept of basileia, the “sacerdotal nature of kingship”. According to G. Dagron, the main aim of the first Macedonian emperors — Basil I, Leo VI and Constantine VII was not only to found their dynasty, but also to legitimate it by grafting it “onto the old imperial stock”, the common dynastic line founded by Constantine I, the first basileus [9, p. 206]. Probably, this intention became one of the crucial reasons for re-opening the mausoleum of Constantine the Great.

For this purpose the whole architectural ensemble of the site of the Holy Apostles was re-modeled to become a stage for important ceremonies designed by the first emperors of the Macedonian dynasty (Fig. 1). The book “De cerimoniis aulae byzantinae”, whose presumed author, or otherwise — commissioner, was Constantine VII, contained protocols for imperial
processions to the cathedral of the Holy Apostles. They were organized on Monday of the Easter week, on Sunday, following the Easter (St. Thomas Sunday or Antipasha), the day of the Holy Apostles, on the commemoration day of Basil the Macedonian and in the week of All-the-Saints [2, c. 138–186].

A special protocol was provided for celebration of annual commemoration of St. Constantine and Helena on the 21st of May. A few days in advance there was a procession to the palace of Bonus. On the eve of the feast a private Vigil was celebrated beside holy crosses in the church of St. Constantine in this same palace. On the day itself the emperors rode from the palace to the complex of the Holy Apostles. Culmination of the ceremonial took place in the mausoleum of Constantine I: the emperors were to enter the cathedral of the Holy Apostles, pass by its sanctuary and meet the patriarch, who was waiting at the door leading to the mausoleum. Together they entered the sanctuary of the mausoleum, the patriarch gave the censer to the senior emperor, who censed the sanctuary and then the tombs of Leo VI, his wife Theophano, Basil I and Constantine I. Afterwards the emperors took leave of the patriarch and returned to the palace of Bonus. There in the court they waited for the patriarch and his retinue, when he had approached and performed the office of consecration and they proceeded to the double sanctuary dedicated to St. Constantine and Helena to venerate the great cross of Constantine I. At the conclusion of the service the emperors mounted to the palace proper, directly from the church, there they dined with the patriarch and high officials invited [2, p. 184–186; 9, p. 204–205; 11, p. 236–245].

Thus, the ceremonial reveals twofold functioning of the mausoleum. It is not only a dynastic tomb of the Byzantine rulers, but also a church with its own sanctuary (it is twice called “St. Constantine” in the book “De cerimonibus aulae byzantinae”). Emperor censing the sarcophagi of the representatives of the Macedonian dynasty was a symbol of continuation of the imperial family of the Byzantine rulers. And the sacral character of this “family” was additionally strengthened in the ceremony, as well as in the real space and time, by juxtaposing the two saints who came out of it — St. Constantine and St. Theophano, wife of Leo VI [9, p. 206–207].

One may conjure that Basil I intentionally emulated Constantine the Great and Justinian I, another model for a Byzantine emperor, in their building activities. “Vita Basillii” lists a significant number of churches and monasteries newly erected or reconstructed by Basil the Macedonian. Amongst them were the churches of St. John the Forerunner and St. John the Apostle in Hebdomon. It was the monastery of St. John the Apostle in Hebdomon where Basil II wished to be buried [16, p. 267–268].

In the 1920s French occupation forces under direction first of Th. C. Macridy, then R. Demangel excavated the remains of two churches in Bakirköy, which is believed to be a section of the Byzantine Hebdomon [26, p. 55–61]. The traces of a basilican building were identified as the church of St. John the Apostle, and the nearby remains of an octagon as the church of St. John the Forerunner. Their proximity to each other allowed Th. C. Macridy to propose that Basil I restoring the two edifices joined them together, that was why since the end of the 9th century the latter church may have not been mentioned in written sources [16, p. 269]. Whatever the actual situation was, the site chosen by Basil II closely resembled the complex of the Holy Apostles, its key elements being: a basilica dedicated to an Apostle, a centrally planned church and nearby imperial summer palaces (Ioukoundianai and Magnaura) [15, p. 408–411].
It seems that this choice was not accidental for one more reason. Basil II, who was famous for his successful wars and care for the army, might well have followed the first emperors of Rome by arranging his tomb at the Constantinopolitan Campus Martius – Hebdomon, which was situated near the city walls in front of the Golden Gate. Hebdomon was the training ground for the Byzantine troops, there the army used to proclaim new emperors. Consequently, it was the starting point for triumphal processions into the City [2, p. 57–92; 15, p. 408–411]. “Vita Basilii” testifies that the Roman tradition of the Triumph was not forgotten in mediaeval Constantinople. Thus it described the triumph of Basil I after a war campaign against Paulicians: “He generously rewarded his army, every distinguished one was decorated, and with rich booty and wreaths of victory returned to the reigning City. Upon entering through the Golden Gate, as the ancient Caesars — victors of the glorious Rome, he received from the people the praises on victory and acclamations, and as he was after the journey headed to the great palace of the Divine Wisdom to make his prayers and appropriate thanksgivings”. [4, p. 173].

One can also try to bridge the octagon domed churches and palace aulae through the idea of a centralized pattern. I. Lavin stated that according to the abundant textual evidence there was a fully developed metaphorical equation between the royal palace and the Christian church by the mid-4th century. The scholar concluded that the central plan, rather than being exclusively of funeral origin, was at least in part a legacy of later Roman aulic art, its origins derived from the so-called “emphasized triclinia” [20]. Indeed, the centralized structures were common in the great palatial complexes of the rulers of the Tetrarchy. Thus, two large octagonal halls were erected in the palace of Galerius in Thessaloniki, the palace of Diocletian in Split contained besides the octagonal mausoleum a vestibule-rotunda and an octagonal triclinium [8, p. 21–22, 32–38, 53–54]. I. Lavin used the examples of the palaces of Lausus (?) and Antiochus in Constantinople to shed light on the transition process of merging the concepts of a palatial audience hall and a church [20, p. 18–20].

To this sequence one may add the Chrysotriklinos, the Golden Hall of the Great Palace of Constantinople, being one of the main throne rooms of the Great Palace. In the 9th century, after the end of Iconoclasm, its decoration was renewed, and the preserved accounts state that the programme of its mosaics was very similar to those applied for churches. The thrones were placed in the eastern apse of the hall near or under the image of Christ. So like Imperial Roman audience halls, the functions of Chrysotriklinos were both religious and secular [1, p. 10–45; 12; 24, p. 184]. The Great Palace had other centrally planned halls and churches: the so-called “Octagon” near the church of St. Stephen, the church of St. Elijah, the building of the First schola [1; 16].

Another argument in favor of the fact that this concept was endearing to the emperors of the Middle Byzantine period may be found in the account of Michael Psellos of the church of Theotokos Peribleptos by Roman III: “The Emperor was crazy about his church and ready to adore, having eyes glued on. That is why he designed it as a royal palace, set the thrones, adorned with scepters and hung the purple veils and spent there a major part of the year, being proud and delighted with the beauty of the building” [5, c. 30–31]. It is worth mentioning that according to Michael Psellos, Constantine IX showed the same obsession with the construction of the church of St. George in Mangana having made it a central building of his palatial
residence [5, p. 125–126]. It was excavated in the 1920s as well [10]. Interestingly the layout of the church yields the same experimental nature as the other two buildings commissioned by Constantine IX, that of the katholikon of Nea Moni in Chios (Pic. 2) and the renewed shrine of the Holy Sepulchre in Jerusalem, all involving the centralized pattern designs.

Summing up both the archaeological and textual evidence it is possible to suggest that the centralized design and especially the octagonal one, was not only actual for the Byzantine architecture in the 9th–11th centuries, but this pattern was still able to convey a very special content, that of the idea of *basilea* as the sacral power and status of a Byzantine emperor. The extant octagon domed churches of the 11th century seen from this angle may be considered as the result of blending the two types of design: cross-in-square church, being a symbol of monastic communities who were gathering strength, and octagonal church closely linked to imperial/metropolitan commission. The needed impulse for this architectural experiment may have been provided by the building activity under Basil I, when his architects had to restore a significant number of the Early Byzantine edifices in Constantinople and its suburbs.

The main aim of this paper was to analyze the possibility of comparing the Byzantine monuments with that of the Roman Empire proper. Though only initial tentative steps were taken, I may state the necessity of such juxtaposition, which may help to prove continuity and prolong the life of the Antique architectural concepts and contents till the Middle Byzantine period at least, not abandoning them at the magnificent buildings of Constantine I and Justinian I.

Литература

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After the victory of iconoclasm, centrally oriented buildings remained important places for staging certain distinguished events of the imperial cult of both the living and the deceased emperors.

The octagonal design, being a symbol of monastic life, may have been seen as a fruitful area for construction and design experiments, and the necessary impulse for them may have been provided by the building activity under Basil I, when his architects had to restore a significant number of the Early Byzantine edifices in Constantinople and its suburbs.

Thus, it may be suggested that the extant octagon domed churches of the 11th century, seen from this angle, may be considered as the result of blending the two types of design: cross-in-square church, being a symbol of monastic life, and the aulae of the Great Palace, being a symbol of imperial/municipal commission.

Keywords: Byzantine architecture; Roman Imperial architecture; palatial architecture; octagon; mausoleum.
и почитавших императоров. Поэтому исследование римских императорских мавзолеев и дворцовых зал, где проводились официальные церемонии, в качестве предшественников византийских архитектурных типов может дать важные результаты. Функционирование комплекса собора Св. Апостолов и залы Большого двора в Константинополе подтверждает, что централизованно ориентированные архитектурные типы храмового зодчества и в особенности здания «на восьми опорах» были не только актуальными для византийской архитектуры IX—XI вв., но и продолжали нести совершенно определенный идеологический смысл, выражая идею сакрального статуса и власти византийского императора.

Будучи актуальным архитектурным решением, огтагональная структура здания могла рассматриваться как богатое поле для экспериментов с конструкцией и планом, необходимый импульс которым могла придать строительная деятельность Василия I, чьим зодчим пришлось реставрировать большое количество ранневизантийских построек в Константинополе и его пригородах.

Таким образом, можно предположить, что сохранившиеся храмы «на восьми опорах» XI в. могли быть результатом объединения двух архитектурных типов: крестово-купольной церкви — символа все более набирающего силу монашества, и огтагона, все еще тесно связанного с императорским/столичным заказом.

Ключевые слова: византийская архитектура; дворцовая архитектура; архитектура Древнего Рима; огтагон; мавзолей.

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