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## An Apologia for Byzantine Architecture\*

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## Abstract

In current scholarship Byzantine architecture has been isolated from contemporaneous Western European developments. Moreover, its proper understanding is hampered by preconceptions and expectations based on our greater familiarity with Western medieval architecture. Accused by medievalists of being small, stagnant, and dull, Byzantine architecture may be facing, at best, utter disregard. The following paper attempts to clarify several common misconceptions and to suggest ways in which Byzantine architecture might be integrated into the larger picture of medieval architectural developments.

A session at the 1992 College Art Association was entitled "The Byzantine and Islamic 'Other': Orientalism and Art History." Among many related issues, it examined the marginalizations of Byzantine studies within the discipline of art history: Byzantium has become exoticized, isolated from Western European developments, and identified as the "Other." In a provocative paper, Robert Nelson pointed out that no survey textbook presents the Byzantine period as contemporaneous with medieval Europe: Byzantium is either viewed as the end of Antiquity or as the beginning of the Dark Ages. Later Byzantine developments—those coeval with the Romanesque and Gothic styles of Western Europe are usually omitted, not fitting into a neatly encapsulated, linear view of European cultural history. Most textbooks simply stop with Hagia Sophia in Constantinople or with San Marco in Venice. But the separation of Byzantium from medieval Europe goes beyond the textbooks. Many medievalists are now of the opinion that Byzantine civilization is not a part of European history, thus justifying its complete omission from their teaching. I've often suspected that there was more interchange of ideas between Byzantium and West during the Middle Ages than there is between scholars of the respective areas today.

My own view is that Byzantine studies have *not* become marginalized—for if they had, they would now hold a more commanding position in our post-structuralist discourses. Rather, they have only been semi-marginalized, falling through the cracks between the main line and the truly exotic. Part of the fault for this lies with the Byzantinists: under the authoritative guidance of Dumbarton Oaks we have learned to emphasize cultural history: thus, Byzantine

architecture is best understood as a reflection of the liturgy, monasticism, and imperial ceremonial rather than as a part of larger developments in European or world architecture. At the same time the sweeping generalizations of scholars like Rivoira, Strzygowski, and others have long since been discounted.1 For example, we don't need the monuments of Early Christian Syria to explain the origins of the Romanesque twin-towered facade: the church at Oalb Lozeh and St.-Étienne at Caen are separated by centuries and by thousands of kilometers, and they must represent independent developments.<sup>2</sup> Nor do we need the basilica of Hagios Demetrios at Thessaloniki to justify the Western European development of the alternating support system prevalent in German Romanesque churches, such as those at Gernrode and Hildesheim.<sup>3</sup> And in spite of Strzygowski's enthusiasm, Armenian church architecture has not proven to be the missing link for the origins of Romanesque structural articulation.<sup>4</sup>

Byzantine architecture is by today's view more distant from Western Europe than it appeared to be one hundred years ago. It may be better viewed as a parallel development, but it was certainly not without some degree of interchange. The domed churches in Southern Italy and in Aquitaine may only be properly understood with a Byzantine prototype. The use of the square bay topped by a hemispherical dome on pendentives is characteristic of all of these buildings, and the fivedomed plans of St.-Front at Périgueux and S. Marco at Venice ultimately derive from the church of the Holy Apostles in Constantinople.<sup>5</sup> Similarly, the appearance of the flying buttresses in Byzantium must reflect Gothic construction during the Latin Occupation of the thirteenth century: for example, the form of the single flying buttress bracing the apse of the Chora in Constantinople is somewhat similar to those at Laon Cathedral.<sup>6</sup> Stained glass and heraldry also may appear in Byzantium as Western introductions, although both of these are problematic. Nevertheless, the idea persists that the Byzantine period preceded the medieval: I suspect that in many instances Byzantium is dismissed precisely because it can no longer be systematically mined for sources and "influences."8

In spite of the objective distancing that has occurred in recent scholarship, it is nevertheless difficult to view Byzantine architecture without preconceptions based on a knowledge of Western medieval architecture. That is to say, our picture of Byzantine architecture has been colored by the development of Western European architecture in the same

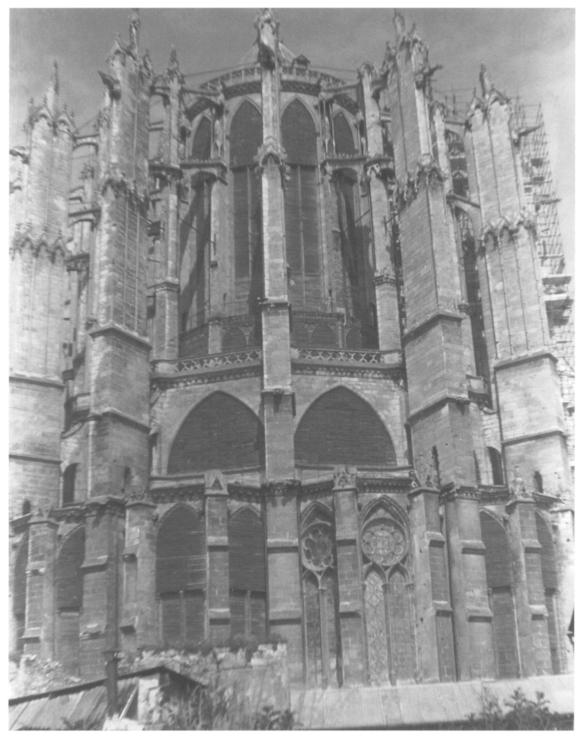


FIGURE 1. Beauvais, Cathedral of St.-Pierre, from east (photo: A. Laing).

period. We are consequently programmed to expect something like a linear pattern of evolution, new structural achievements, and building on the grandest of scales. Byzantine architecture fails to live up to such great expectations, and, accordingly, it has been dismissed by medievalists as

small, stagnant, and dull.<sup>9</sup> Are such accusations justified, or do they simply reflect the cultural baggage we carry as medievalists? In this paper, I shall attempt to rescue Byzantine architecture from utter disregard by correcting several popular misconceptions.



FIGURE 2. Nerezi, church of St. Panteleimon, from southeast (photo: author).

First misconception: Byzantine architecture is small because the masons were incapable of building anything larger (Figs. 1-2). In the study of medieval architecture, creativity is often linked with size: big is seen as better, and architectural inventiveness is tied to structural innovation on the grandest of scales. 10 Limited scale becomes equated with limited skill. Certainly nothing like Hagia Sophia was attempted after the sixth century, but it really wasn't necessary. Built to be unique, Hagia Sophia remained a white elephant through most of its later history. To expect later architecture to follow suit ignores some basic functional considerations. Students of the Byzantine liturgy have emphasized the "privatization" of Byzantine worship: both lay and monastic congregations were small, even in urban areas.11 The architectural response took the form of numerous small-scale churches with annexed chapels. Within the churches a series of independent, subsidiary spaces was created, enveloping the naos-as at St. Panteleimon at Nerezi (1164), where the four corner bays are filled by domed chapels (Fig. 2). This stands in contrast to Western developments such as the chevet (Fig. 1) and side aisle chapels.<sup>12</sup>

That similar concerns were addressed in very different manners in the East and in the West may be instructive. For example, in the eleventh century the Holy Sepulchre in Jerusalem was rebuilt by the Byzantine emperor Constantine Monomachus in a typical Byzantine manner (Fig. 3). The fourth-century Basilica had been destroyed and was not re-

built; instead, the Anastasis Rotunda, containing the Tomb of Christ, became the focus of the complex. A system of subsidiary chapels on two levels was joined to the Rotunda, the most important connected by a porticoed courtyard. This series of independent, private devotional spaces served the needs of the Byzantine visitor. Following the successful completion of the First Crusade in 1099, much of the Byzantine addition was replaced, in spite of its relative newness. The Crusader "improvement" actually attempted a Western solution to the same problem the Byzantine reconstruction had addressed: the unification of the numerous sites within the complex. The major chapels were joined under one roof as a transept and pilgrimage choir replaced the courtyard, and an ambulatory with radiating apsidioles replaced the portico and chapels (Fig. 4).<sup>14</sup> It is important to emphasize that both the eleventh-century Byzantine plan and the twelfth-century Romanesque modification were addressing the same set of concerns.

Second misconception: Byzantine architecture is stagnant and repetitive. A typological emphasis, based on the Western model, has led to numerous attempts to squeeze Byzantine architectural developments into a linear pattern of evolution. It simply hasn't worked: Byzantine architecture developed in a different way, with many different building types existing side by side. Moreover, the standard, typological approach has emphasized what is static rather than what is dynamic in the architecture. This approach tells us,

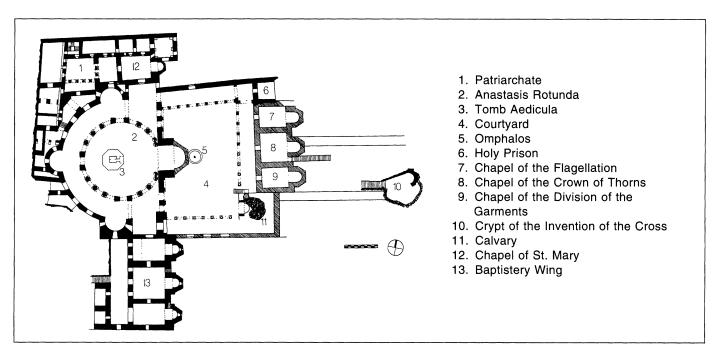


FIGURE 3. Jerusalem, church of the Holy Sepulchre. Plan of the eleventh-century reconstruction, with numerous annexed chapels (author, redrawn from Corbo).

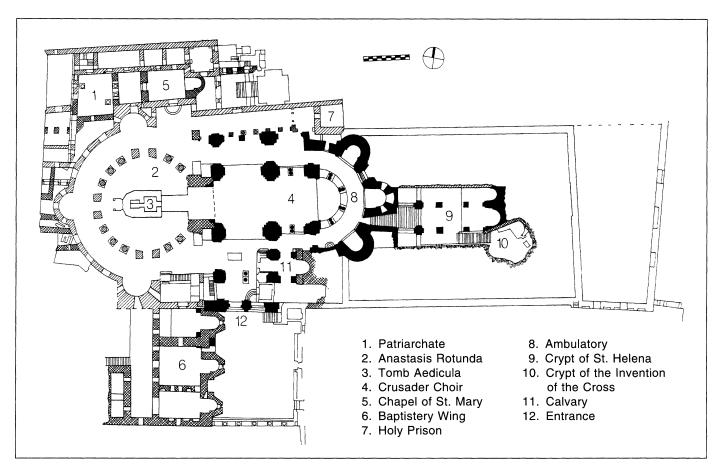


FIGURE 4. Jerusalem, church of the Holy Sepulchre. Plan of the twelfth-century reconstruction, with a transept and a pilgrimage choir (author, redrawn from Corbo).

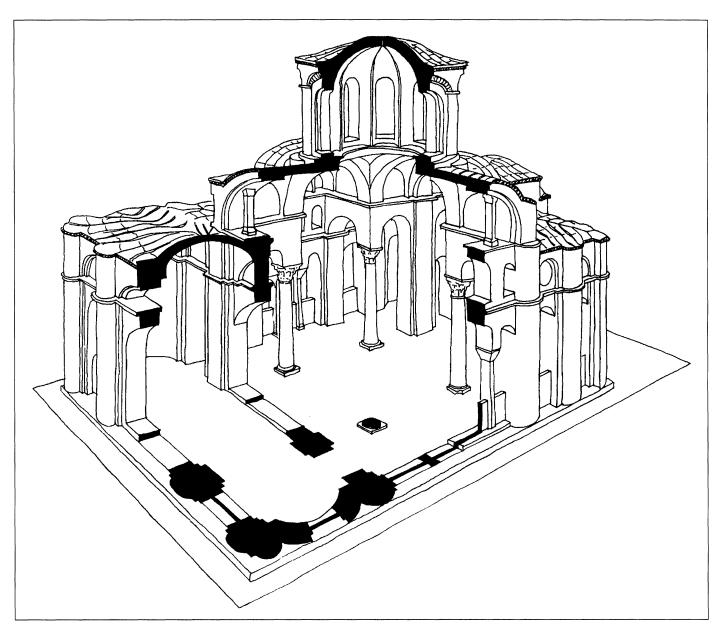


FIGURE 5. Constantinople, Myrelaion church (Bodrum Camii), perspective section of a cross-in-square church, showing the organization of interior spaces (author, redrawn from Striker).

for example, that the cross-in-square or four-column church was the standard building type, used for a variety of purposes, but it doesn't tell us why there are so many different versions of the same building type, why no two Byzantine churches are identical. As Cyril Mango has noted, "The chief contribution of Middle Byzantine architecture consisted in the elaboration of a type of church that was, in its own way, perfect." Examples of the cross-in-square plan from a single region, such as Bithynia, Bulgaria, or even Cappadocia, often exhibit variations so extreme as to resist easy categorization. Moreover, architectural analysis is often reduced to a comparison of floor plans, and the insistently three-dimensional character of the Byzantine church is over-

looked. Certainly, masons did not create a "formula" and repeat it blindly. Above all, Byzantine architecture was a responsive architecture—responsive to the special requirements of location, function, and decoration.

Byzantine architecture may be best viewed as a dynamic interplay between elements that were necessary and fixed by religious usage and elements that were variable and introduced by the architect for other than purely functional reasons. Standard features, dictated by liturgical usage, would include the basic spaces: the narthex, the naos topped by a dome, and the three-part sanctuary (Fig. 5).<sup>18</sup> Elements such as types of vaults, decorative articulation, proportions, additional chapels, and so on, were variable. The constant

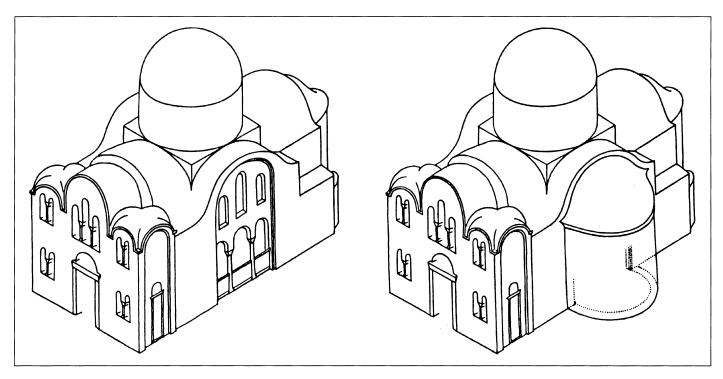


FIGURE 6. Mt. Athos, katholikon of Lavra monastery, drawing showing the transformation with the addition of choroi (from Mylonas).



FIGURE 7. Constantinople, Myrelaion church, south facade (photo: author).

interplay of standard features and variables has created an architecture of diversity. A few examples will illustrate the flexibility and small-scale experimentation that characterized Byzantine architectural creativity.

New plans and building types were introduced, but the basic schema was never lost. The cross-in-square format often seems to have been a starting point in the conceptual process, easily adaptable to certain special requirements, such as liturgical necessities. For example, the katholikon of Lavra Monastery on Mount Athos began as a cross-in-square church in the late tenth century. It was subsequently enlarged with lateral apses, or *choroi*, for the choirs of monks to sing antiphonally across the central space (Fig. 6).<sup>19</sup> In later modifications, two domed chapels were added, as well as an extra narthex. In later buildings, such as the Profitis Elias in Thessaloniki of the late fourteenth century, all of these elements were incorporated into a church of a single construction period.<sup>20</sup> Thus, the gradual transformation of a single building introduced new building types into the architectural mainstream.

Structure was also an important concern. Byzantine architecture often has the structural clarity associated with the

Romanesque, with pilasters—and occasionally engaged columns—emphasizing the structural system, as at the tenth-century Myrelaion in Constantinople (Fig. 7).<sup>21</sup> Occasionally there is a conscious mannerism to this type of articulation—as at the fourteenth-century Chora in Constantinople, where half-columns and responds appear illogically "supporting" windows (Fig. 8).<sup>22</sup> Structural concerns were also an outgrowth of scale, as at the eleventh-century *katholikon* of Hosios Loukas, where the expanded central space is covered by a large dome raised on eight points of support. In fact, throughout the building, the bearing wall is virtually eliminated and replaced by a sophisticated system of point support (Fig. 9).<sup>23</sup>

At the Chora monastery, archaeological investigations have clarified a structural transformation in response to site requirements. The eleventh-century, cross-in-square church apparently collapsed in the twelfth due to the unstable terrain on which it had been constructed.<sup>24</sup> In its reconstruction, the four columns were replaced with large stout piers, moved to the corners of the naos. The result was a more unified, cruciform plan, topped by a larger dome. Although an aesthetically satisfying transformation, the new plan came as a direct response to the practical necessities of the site.

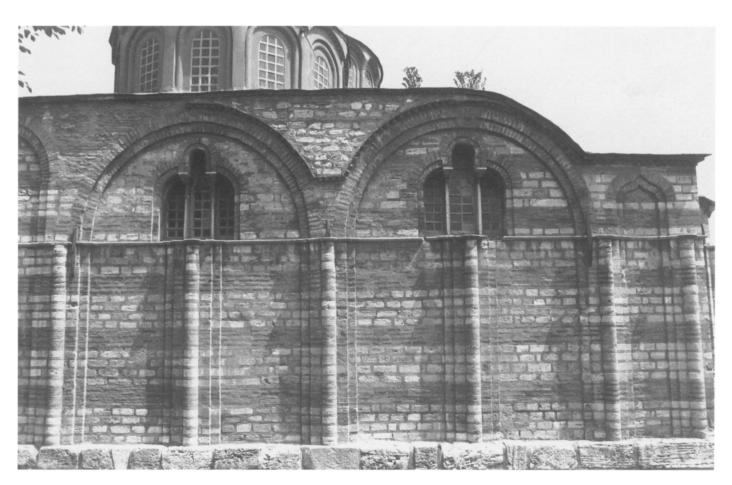


FIGURE 8. Constantinople, Chora church (Kariye Camii), south facade of the parekklesion, detail (photo: author).



FIGURE 9. Phokis, katholikon of Hosios Loukas monastery, interior looking east (photo: author).

Certainly aesthetic considerations are significant. To a certain extent, both the clear expression of structure on the facade—as seen at the Myrelaion—and the negation of structure by a decorative surface—as seen at the early fourteenthcentury Pammakaristos monastery (Fig. 10)—were aesthetic responses. But most important in a Byzantine church is the proper housing of the decorative program of the interior, and in the best Byzantine churches there is a direct relationship between architectural form and decoration. For example, I have hypothesized that at the eleventh-century church of Nea Moni on Chios, a radical transformation was undertaken during the process of construction.<sup>25</sup> An octaconch was introduced above a square naos, thereby making the transition to a large dome that spans the entire space (Fig. 11). The octaconch creates a ring of curved surfaces close to the viewer on which the mosaic scenes of the life of Christ could be represented. I concluded that the transformation in the design

of the building came about in order to create a proper framework for display of the rich mosaic program with its imperial overtones.<sup>26</sup> In the example of the fourteenth-century Chora, the selection of vaulting types may have been a response to the decoration. We see, for example, pumpkin domes employed for mosaics, but a ribbed dome with flatter surfaces used for fresco-both media displayed to their best advantage.<sup>27</sup> In addition, sail vaults are consistently used to create a flattish surface for the narrative scenes. The funeral chapel at the Chora perhaps best demonstrates the small-scale "architectural jewelry-work" that characterizes Byzantine architecture at its best. The fresco program spreads out before the visitor, cascading from high dome to domical vault to apse (Fig. 12). The unique placement of the Last Judgment in a domical vault both unifies the composition and extends it to include the space it envelops.<sup>28</sup> The faithful buried in the arcosolia of the funeral chapel are thereby included in the scene. It is not so much a fresco program set into an architectural space as an architectural space that has become an integral and iconographically significant part of its decorative program.

The attempt to develop a typological framework for Byzantine architecture based on a Western European model may have also misdirected our interpretation of Byzantine monasticism, and the subject deserves a brief excursus. From the ninth century onward, European monasteries follow a carefully constructed typology that corresponded in many ways to requirements for monastic life set forth in the Rule of St. Benedict. Beginning with the St. Gall plan, a standard organization of church, cloister, and refectory was established.<sup>29</sup> In contrast, Byzantine monasticism, following the Rule of St. Basil, was not so rigidly organized, nor were the units so large—nor, unfortunately, are they so well-preserved as their Western European counterparts. Seeking an architectural typology for Byzantine monasticism, Orlandos and others have focused almost exclusively on Post-Byzantine monuments, such as the monasteries of Mount Athos.<sup>30</sup> New excavations, such as those on Mt. Papikion in northern Greece and at numerous sites in the former Yugoslavia, only serve to emphasize the lack of an established system of organization for Eastern monasticism.31 The translation and commentary of all Byzantine typika (monastic rules), now in preparation for publication by Dumbarton Oaks, should greatly assist our investigations.<sup>32</sup>

I suspect that the view of Byzantine monasticism from a Western perspective has led to the willful misidentification of well-organized architectural complexes as monastic. Stephen Hill has recently suggested the removal of Alahan Manastir and several other Anatolian complexes from the category of monasteries, and others are long overdue for reassessment.<sup>33</sup> In a recent book Lyn Rodley examines the rock-cut monasteries of Cappadocia, a region in which considerably more evidence is preserved than elsewhere in the Byzantine Empire.<sup>34</sup> She divides the monasteries into two types: courtyard monasteries and refectory monasteries

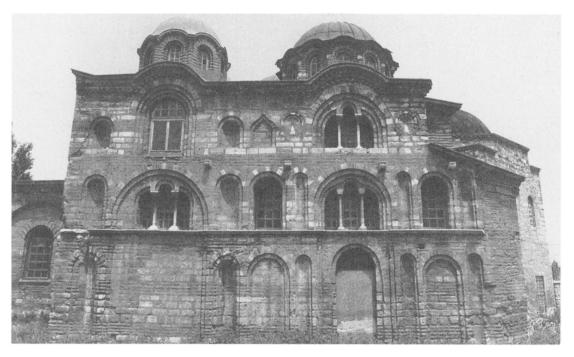


FIGURE 10. Constantinople, Pammakaristos church (Fethiye Camii), south facade of the parekklesion (photo: author).

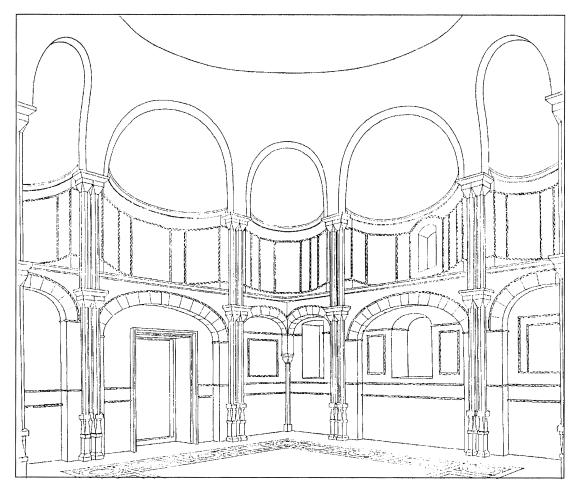


FIGURE 11. Chios, katholikon of Nea Moni monastery, reconstructed interior view (from Orlandos).



FIGURE 12. Constantinople, Chora church, interior of the parekklesion, looking east (photo: courtesy of Dumbarton Oaks Visual Resources).

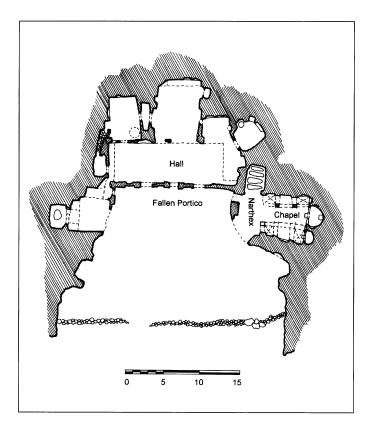


FIGURE 13. Çanlı Kilise settlement, unit 7, plan. Probably a courtyard residence (author).

(Figs. 13–14). Those which possess a refectory (or *trapeza*) with a rock-cut table and benches tend to be small and disordered, but with the church and refectory in central positions. The so-called courtyard monasteries have a well-organized grouping of rooms around a rock-cut court with a portico along the main facade and the church—if one is included—off to one side. The latter type usually have a large, transversally or longitudinally-planned hall and frequently a centrally-planned hall in the main suite of rooms, but they have no clearly identified refectory.

Traditionally Cappadocia has been viewed as an area of monastic settlement. This view was expressed as a romantic reaction to the harsh landscape by early Western visitors, and it was further developed by Father Jerphanion, who began the systematic study of the region.<sup>35</sup> His focus was the Göreme Valley, which clearly had a high density of monasteries. As scholars have explored and recorded other settlements of the region, they inevitably identify them as monastic, and one might begin to believe that Cappadocia was inhabited solely by monks. Were all of these settlements actually monasteries? The presence of a refectory is a good indicator, but what about the so-called courtyard monasteries? Rodley notes that several of the courtyard complexes lack churches; that the quality of the painted decoration

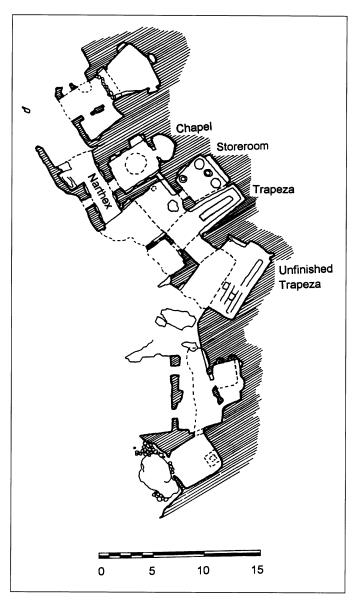


FIGURE 14. Çanlı Kilise settlement, unit 17, plan. A monastery with a refectory (author).

tends to be higher in the courtyard monasteries; and that no venerated local monks are represented in the churches belonging to this group.<sup>36</sup> Nor do Byzantine texts lead us to believe that Cappadocia was a monastic region—at least any more so than other areas of the Empire. In the end, I find that there is nothing to suggest that the majority of these units were monastic. They are more likely residences. In fact, the so-called courtyard monasteries may best resemble Byzantine palaces, such as the Myrelaion Palace in Constantinople, which was similarly pi-shaped, with portico and courtyard, and a chapel off to one side.<sup>37</sup>

I suspect that the familiarity with the well-ordered, cloister-centered Western European monasteries has misled

Byzantinists to look for similar forms and a similar organization in the East. But, as with church planning, Byzantine monasteries followed their own direction. In Byzantium associations between monastic planning and domestic architecture may be closer than in the West. Paul Magdalino has noted the similarities between Byzantine household organization and monastic organization, and there are recorded instances of palaces being converted to monasteries without significant change.<sup>38</sup> All of this goes to say that a typology based on Western European models or a similarity of forms may provide an erroneous picture of Byzantine monasticism.

Third misconception: Byzantine architecture is dull. In their introductory textbook to the history of architecture, Trachtenberg and Hyman dismiss later Byzantine architecture because "nothing truly radical was built," complaining that "space no longer 'breathes' but seems almost airless. Architectural gestures are no longer bold, but nervous and inhibited." According to them, these Byzantine developments cannot rightly be called medieval, but are merely dehydrated Hagia Sophias. Are these fair criticisms for an introductory textbook? Perhaps we expect Byzantine architecture to be something that it isn't. As far as I can tell, Trachtenberg and Hyman expect it to be Gothic.

Byzantine descriptions of architecture may help to refocus our view, because they tell us what the medieval viewer found noteworthy. In most descriptions, the details are given precedence at the expense of the clear delineation of the structure. Plans are never described, yet the different types of marbles are itemized, and certain impressive furnishings are presented in detail. In a description of the monastery of Kauleas at Constantinople, Leo VI (886–912) paid special attention to the mosaics and the marbles, concluding, "These have a beauty that corresponds exactly to that of the rest of the church." A building becomes a sum of components, described close-up and selectively, whereas the overall form remains nebulous.

The same emphasis on detail is evident when we examine the architecture. It may be expressed through a concern for individual components, for the decorated surface rather than the unification of architectural forms, or simply through architectural changes carried out on a small scale and involving only certain parts of a building. To properly understand Byzantine architecture, I suspect we should be looking at the little picture rather than the big picture. Understood on its own terms, Byzantine architecture has not only charm, but a valuable position in the history of architecture.

It is possible to view Byzantine architecture as a parallel to the Western European developments: scale and form may differ, but similar structural and aesthetic concerns are addressed in both cultures, with varying results. For example, the structural clarity of the Myrelaion parallels that of the Romanesque. The sophisticated structural system of Hosios Loukas might be compared to an early Gothic system. The unity of aesthetic and structural concerns, seen in the interior

design of the Chora, may parallel the High Gothic. The emphasis on formal concerns at the expense of structural clarity, seen at the Pammakaristos, corresponds to Late Gothic. But this is not to say that one necessarily depended upon or influenced the other. Rather, it suggests that both addressed the specific needs of societies in more-or-less similar stages of development, albeit with different social and economic structures. In the final analysis, the differences in the architecture are as illuminating as the similarities. But our understanding of one culture should not limit our interpretation of the other—or of the "Other."

## **NOTES**

- \* A shorter version of this paper was presented at the 1993 Annual Meeting of the Society of Architectural Historians. I am using the term *apologia* in its medieval sense: what I am presenting is an explanation, *not* an apology.
- See, for example, J. Strzygowski, Baukunst der Armenier (Vienna, 1918); G. T. Rivoira, Le origini della architettura lombarda (Rome, 1901–1907), among others, nicely assessed by W. E. Kleinbauer, "Prolegomena to a Historiography of Early Christian and Byzantine Architecture," in Early Christian and Byzantine Architecture: An Annotated Bibliography (Boston: 1992), esp. pp. lxxi-lxxxi.
- 2. As K. J. Conant reluctantly admits, *Carolingian and Romanesque Architecture 800-1200* (Harmondsworth, 1966), 39, and n. 9.
- 3. As does H. Saalman, *Medieval Architecture* (New York, 1962), 25-26, whose text is peppered with Byzantine influences.
- The idea of the East as an "inexhaustible reservoir" is still occasionally maintained: see, for example, V. I. Atroshenko and J. Collins, The Origins of the Romanesque: Near Eastern Influences on European Art, 4th-12th Centuries (Woodstock, N.Y., 1985).
- A. Wharton Epstein, "The Date and Significance of the Cathedral of Canosa in Apulia, Southern Italy," DOP, XXXVII (1983), 79–90; Conant, Carolingian and Romanesque, esp. 289.
- 6. A. Lenoir, Architecture monastique (Paris, 1852), 281, saw the Byzantine flying buttress at the Chora as evidence that it had been developed in Byzantium before the West; see R. Ousterhout, The Architecture of the Kariye Camii in Istanbul (Washington, D.C., 1987), 132–33, for discussion of flying buttresses in Byzantium.
- A. H. S. Megaw, "Notes on Recent Work of the Byzantine Institute," DOP, XVII (1963), 333-67, esp. 363-64, suggested that the presumably early twelfth-century glass from the Pantocrator and the Chora monasteries in Constantinople might indicate a Byzantine origin for the technique. He was taken to task by Western medievalists; see J. Lafond, "Découverte de vitraux historiés du moyen âge à Constantinople," CahArch, XVIII (1968), 231–38. More recently, a chemical analysis of the stained glass found at the Chora Monastery revealed a completely different composition than the Western examples that have been tested; see J. Henderson and M. M. Mango, "Glass at Medieval Constantinople: Preliminary Scientific Evidence," in Constantinople and its Hinterland, eds. C. Mango and G. Dagron (London, 1995), 333-56. The glass from the Pantocrator is also being analyzed. With heraldry, the Byzantines seem to have borrowed the visual vocabulary without the specificity of meaning—a topic to which I hope to return; see for now D. Mouriki, "Palaeologan Mistra and the West," in Byzantio kai Evrope/Byzantium and Europe (Athens, 1987), 209-246, who notes numerous Western features at Mistra.

- Some curiously old-fashioned arguments still appear, such as E. C. Fernie, "St. Vincent at Cardona and the Mediterranean Dimension of First Romanesque Architecture," in *Studies in Medieval Art and Architecture Presented to Peter Lasko*, eds. D. Buckton and T. A. Heslop (London, 1994), 24–35.
- For example, M. Trachtenberg and I. Hyman, Architecture from Prehistory to Post-Modernism (New York, 1986), 180-82, dismiss later Byzantine architecture because "nothing truly radical was built." More on this later.
- See my comments, "Beyond Hagia Sophia: Originality in Byzantine Architecture," in Originality in Byzantine Literature, Music and Art (Oxford, 1995), 167–82.
- 11. T. Mathews, "'Private' Liturgy in Byzantine Architecture: Towards a Re-Appraisal," *CahArch*, XXX (1982), 125–38; and comments by C. Mango, *Byzantine Architecture* (New York, 1976), 249.
- S. Ćurčić, "Architectural Significance of Subsidiary Chapels in the Middle Byzantine Period," JSAH, XXXVI (1977), 94–110.
- R. Ousterhout, "Rebuilding the Temple: Constantine Monomachus and the Holy Sepulchre," *JSAH*, XLVIII (1989), 66–87, with current bibliography.
- V. Corbo, Il Santo Sepolcro di Gerusalemme, 3 vols. (Jerusalem, 1981), esp. I, 183–209.
- 15. G. Millet, L'école grecque dans l'architecture byzantine (Paris, 1916), 14–140 and passim; R. Krautheimer, Early Christian and Byzantine Architecture, 1st ed. (Harmondsworth, 1965), also discussed buildings by type, and in spite of numerous refinements, the typological basis of his discussion is still evident. See also comments by C. Mango, Byzantine Architecture, 9; and T. Mathews, "Notes on the Atik Mustafa Paşa Camii in Istanbul," DOP, XXXIX (1985), 125.
- 16. Mango, Byzantine Architecture, 249.
- Ousterhout, "Beyond Hagia Sophia," fig. 13.1 (Bulgaria); Y. Ötüken and R. Ousterhout, "The Byzantine Church at Çeltikdere (Seben-Bolu)," in Studien zur Byzantinischen Kunstgeschichte: Festschift für Horst Hallensleben zum 65. Geburtstag, eds. B. Borkopp, B. Schellewald, L. Theis (Amsterdam, 1995), 85-92, esp. nn. 9-10 (Bithynia); L. Rodley, Cave Monasteries of Byzantine Cappadocia (Cambridge, 1985), 227-36, and fig. 44 (Cappadocia).
- 18. R. Ousterhout, "Architecture Serves the Liturgy," in *Heaven on Earth*, ed. L. Safran (University Park, Pa., forthcoming).
- P. Mylonas, "Le plan initial du catholicon de la Grande-Lavra au Mont Athos et la genèse du type du catholicon athonite," CahArch, XXXII (1984), 89-112.
- Th. Papazotos, "The Identification of the Church of 'Profitis Elias' in Thessaloniki," DOP, XLV (1991), 121–28.
- C. L. Striker, The Myrelaion (Bodrum Camii) in Istanbul (Princeton, 1981), 26.

- 22. R. Ousterhout, *The Architecture of the Kariye Camii in Istanbul* (Washington, D.C., 1987), 116-26.
- 23. P. Mylonas, "Domike Erevna sto Ekklesiastiko Syngrotema tou Osiou Louka Phokidos," *Archaiologia*, XXXVI (1990), 6-30, with English summary.
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