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Discovering the Byzantine Art of Building

Lectures at the RIBA, the Royal Academy and the London Architectural Society, 1843-58

Dr. Nikolaos Karydis

Abstract

British architects played a major role in the rediscovery of the Byzantine monuments of Greece in the late-19th and the early-20th century. Although the work of these architects is being investigated, its mid-19th century origins remain obscure. This topic has so far been dominated by the belief that, in this early period, British architects had limited interest in Byzantium. Yet, four lectures, read at the R.I.B.A., the Royal Academy, and the London Architectural Society from 1843 to 1857, challenge this view, reflecting a lively interest in Byzantine church architecture and its potential to inspire new design. Delivered by Charles Robert Cockerell (1843), Edwin Nash (1847), Thomas Leverton Donaldson (1853), and John Louis Petit (1857), these lectures constitute some of the earliest attempts in England to explore Byzantine architecture. The current paper investigates the manuscript records of these lectures in the archives of the R.I.B.A. These documents reveal an extensive understanding of Byzantine Architecture. Mentioning a plethora of churches in Greece, they reflect an interest in the structure of Byzantine monuments. Viewing these monuments through the lens of the builder emphasised their potential to inform new design, paving the way for the Byzantine Revival, half a century later. These authoritative lectures also prepared the conditions for the subsequent study of Byzantine architecture; they helped to form the cultural environment that favoured the systematic investigation of Byzantine architecture by British scholars from late-19th century onwards.

Introduction

The turn of the 20th century was marked by an unprecedented interest in Byzantine Architecture in Britain. Just as British architects were reviving aspects of the Byzantine style, the latter's vocabulary was being explored by a 'mighty handful' of British scholars who were surveying, studying and publishing Byzantine monuments in Greece and Turkey. The activities of Walter George, Robert Weir Schultz, and Sidney Barnsley from the 1880s to the 1910s have been well documented.¹ Still, the origins of their work and its relationship with previous efforts to study Byzantine Architecture are not entirely understood. Similarly, our knowledge of the precedents that underpinned the work of Byzantine Revival architects such as John Francis Bentley, Robert Weir Schultz, and William Lethaby is also limited. One could ask whether these were the first British architects to draw upon the rich vocabulary of Byzantine architecture. Were this to be true, it would imply that Byzantine architectural influences arrived quite late in Britain by comparison to other European countries, such as France and Germany. The only way to confirm this claim is by examining the reception of Byzantine Architecture in Victorian Britain, and especially during the fifty years that preceded the Byzantine revival.

Recent publications investigate this topic through the lens of Victorian art critics and historians, such as Alexander Lindsay and John Ruskin.² However, these authors' knowledge of Byzantine buildings was limited to Italian monuments. Besides, the design analysis of little-known architectural forms was not their key concern. For all its value, the work of these scholars may not be the best indicator of the state of knowledge regarding Byzantine architecture in mid-19th century Britain. Investigating the work of architects

with first-hand knowledge of Byzantine monuments would offer more accurate indications. However, the role of Victorian architects in the exploration and dissemination of Byzantine architectural heritage is relatively neglected. The huge impact of the Gothic Revival has somewhat overshadowed the interest of Victorian architects in other medieval styles. This has reinforced the theory that British architects had little interest in Byzantium in the middle of the 19th century.³

The above theory overlooks the fact that Byzantine architecture was the topic of popular and authoritative lectures in some of the key architectural fora of mid-19th century London. Indeed, lectures at the RIBA, the Royal Academy, and the London Architectural Society from 1843 to 1858 reflect a lively interest in Byzantine church architecture and its potential to inspire new design. These lectures were delivered by Charles Robert Cockerell (1843), Edwin Nash (1847), Thomas Leverton Donaldson (1853), and John Louis Petit (1858). They constitute some of the earliest attempts in England to explore Byzantine architecture.

The current paper investigates for the first time the manuscript records of these lectures in the archives of the RIBA. The main aim of this examination is to establish the degree to which these lecturers understood the architectural heritage of Byzantium. The second aim is to establish the particular approach of each lecturer to the architectural heritage of Byzantium. Were byzantine buildings regarded simply as relics of the past or as a fertile source of architectural inspiration? Answering this question sheds new light on the reception of Byzantine architecture in the Victorian period. This is also essential to understand the cultural environment that prepared the ground for the Byzantine Revival around the turn of the 20th century.

Redefining Church Architecture: Charles Robert Cockerell at the Royal Academy (1843)

One of the first lectures investigating Byzantine architecture in England was delivered in 1843 by Charles Robert Cockerell, a major architect and a distinguished Professor of Architecture at the Royal Academy.⁴ That Cockerell turned his attention towards what was a relatively unfashionable topic should hardly surprise us. As David Watkin has demonstrated, our lecturer did not feel entirely comfortable within the fashions of his time. He was critical of both the Greek and the Gothic revival.⁵ His assessment of these historicist movements was grounded on a strong knowledge of architectural history. This was not only based on secondary sources but also on fieldwork. In his youth, Cockerell had surveyed Ancient monuments in Greece and Italy, and had become famous for his discoveries at Bassae and Aegina.⁶ Consolidating these early discoveries, the architect's frequent trips to Italy and France gave him a solid knowledge of Renaissance and Baroque architecture in the continent. These studies and travels inspired a varied, inclusive architectural culture, which acknowledged the contribution of a wide range of architectural developments. This inclusive view of architectural history forms the background of Cockerell's lecture on Byzantine church architecture.

Lectures such as this one were an important event in the architectural life of London. Open to the public, the lectures were held in the Royal Academy's rooms at the National Gallery in London. Summaries of the lectures were published in journals such as 'the Builder', which had a profound influence on the development of Victorian architecture. This journal's edition of 4 March 1843 reports Cockerell's lecture on Sacred Architecture earlier in the same year.⁷ According to the journal, this lecture described 'the temple

structures at and about the time of Constantine' and the development of domed churches during the times of Justinian. The RIBA archive preserves the manuscript notes of a lecture given by Cockerell on a similar topic: 'Christian Architecture from Constantine till 1300'.⁸ This lecture includes many references to Byzantine church architecture, which have never been recorded so far.⁹

In the beginning of his lecture, Cockerell observes that Byzantium's contribution to the development of church architecture was neglected at his time. He also argues that the champions of the Gothic Revival 'limited Christian Architecture to the pointed style of the 13th or the 15th century'. For Cockerell, this style is 'remarkably unsuited to the form and workings of ritual used in England'.¹⁰ On the other hand, he claims that there is 'no form better adapted to Protestant worship than the Eastern Church of Justinian'.¹¹ These two statements shed light on Cockerell's agenda. Censuring Gothic Revival, the dominant style of his day, he seeks to introduce new, alternative models for church architecture. For Cockerell, Byzantine architecture is not a topic of 'antiquarian interest', but, as he states, a source of 'expertise and materials for thinking about architecture'.¹² Cockerell's promotion of Byzantine churches as models for the design of Anglican churches shaped his approach to his topic: Byzantine architecture is viewed through the lens of the designer.

Cockerell organises part of his material chronologically. He starts with the churches of Constantine in Rome and Constantinople, proceeds to investigate Justinianic architecture, and closes with the developments of the Middle Byzantine period and their impact on European architecture. However, this broad chronological narrative is punctuated by frequent parallels between Byzantine buildings and 19th-century examples. The flexibility with which our architect 'travels' in time, confirms Bordeleau's analysis of Cockerell's relationship with time.¹³ This gives him a remarkable ability to identify timeless architectural themes in buildings of different eras.

Parallels between medieval, Early Modern and Victorian churches dominate Cockerell's treatment of the early Byzantine period. This part of his lecture starts with an examination of the Early Christian basilica, emphasising the plainness of a building type that, for Cockerell, is 'nothing more than a mighty barn'. He also argues that the elements added to the basilican church halls (such as the transept, the western towers and the apse) fail to form a coherent whole. Cockerell censures the way in which this type was adopted in the design of 19th-century Gothic Revival churches. He argues that the interior pillars obstruct the view of the congregation and the Victorian basilican churches 'have all the vices with none of the merits of the original'.¹⁴ On the other hand, the domed churches developed in the times of Justinian are deemed to be 'models of imitation'. These buildings, and especially the church of Hagia Sophia at Constantinople, seem to have made a profound impression on Cockerell. He praises their 'richness of outline' as well as their 'vertical elevation and the external importance given to it by the dome'.¹⁵

The brevity of the above description may reflect the limited scholarly knowledge about the monument at this time. Indeed, Cockerell gave his lecture nine years before the appearance of Fossati's book of lithographs of Hagia Sophia (1852) and eleven years before the publication of the first scholarly study of the monument by Wilhelm Salzenberg (1854).¹⁶ However, two French surveys which were probably accessible to Cockerell provided a thorough analysis of Hagia Sophia. The first one was carried out in 1834 by the French Archaeologist Charles Texier.¹⁷ The second one was published three years prior to

Cockerell's lecture, in an article by the pioneering Byzantine archaeologist Albert Lenoir.¹⁸ This article included a detailed account of the design of the Great Church accompanied by a good plan. The similarities between the examples chosen in Cockerell's lecture and Lenoir's article seem to suggest that the latter was known to the English scholar.¹⁹

Following his reference to Hagia Sophia, Cockerell turns his attention to another type of domed church which was probably not as well-known as Hagia Sophia to his audience. These 'tetrastyle buildings', as our speaker calls them, incorporate a space that 'has the form of the Greek cross and offers the smallest possible obstruction to the view of the interior of the church'.²⁰ This description seems to refer to the type known today as the 'cross-in-square' or 'inscribed cross' church. Now, this is the most widely spread Middle Byzantine church plan in Greece and Asia Minor.²¹ Our lecturer's understanding of these buildings must have been partly based on site observations carried out in Athens and its vicinity more than thirty years prior to the lecture. Indeed, in the early 19th century, Athens preserved tens of examples of this church type, and Cockerell, who stayed in this city between 1813 and 1814, must have been familiar with some of them. But, Cockerell's experience of these buildings in situ was probably supplemented by two French publications. One year before Cockerell's lecture, André Couchaud published a series of remarkably detailed drawings of the main Byzantine churches of Athens (**fig. 1**).²² Including a brief introduction to Byzantine architecture, this pioneering publication seems to have made a profound impression to Cockerell, who praises the 'zeal and ingenuity of Couchaud'. Additional information about the cross-in-square church could have also been drawn from Lenoir's article, mentioned above.²³

Having examined Cockerell's account of the Byzantine domed churches, we reach one of the most intriguing aspects of his lecture. Our speaker goes as far as to present the Byzantine domed basilica and the inscribed cross church as the models of five of the most famous churches of Sir Christopher Wren.²⁴ For Cockerell, the design of St. Paul's Cathedral in London has its origins in Justinianic architecture (**fig. 2**).²⁵ Similarly, St. Stephen Wallbrook, one of the most impressive of Wren's smaller City churches (built between 1672 and 1677), shows 'the beauty of which the arrangement [of Byzantine models] is capable'. Cockerell also raises the possibility that Wren drew upon the heritage of the Byzantine 'tetrastyle' churches to design some other City churches, such as St. Martin's, Ludgate Hill (built between 1677 and 1687).

One might raise doubts about the exactitude of these daring statements. Let us take St. Martin's Ludgate, for instance. This features a quincunx plan with a four-column interior configuration which, indeed, resembles certain Middle Byzantine church models. However, we should also note that the central bay of this church is not surmounted by a dome but by a cross vault (**fig. 3**). This design deprives this particular church from the vertical emphasis that Cockerell cherished in Byzantine churches. Cockerell's hypothesis regarding the Byzantine derivation of Wren's City Churches may not be easy to prove but sheds light on the agenda of his lecture.²⁶ Cockerell 'used' the small but notable similarities between Wren's designs and certain Byzantine churches to demonstrate the latter's relevance as models for new church design.

The above analysis confirms that Cockerell viewed Byzantine architecture through the lens of the practicing architect. Underpinned by the publications of Lenoir (1840) and Couchaud (1842), Cockerell's knowledge of architectural forms enabled him to cover

some of the gaps of the historical scholarship in England. The remaining gaps, however, are responsible for the limitations in Cockerell's treatment of this topic. A modern scholar cannot avoid registering the generalisations and inaccuracies of this lecture. This reduces a varied architectural vocabulary into just two church types. One of these types, the timber-roof basilica, is presented mainly as an Italian phenomenon.²⁷ None of the hundreds of Greek and Turkish examples of this type are mentioned and with a good reason: few had been excavated or identified at this early time. To compensate for the insufficient number of examples in his disposal, Cockerell describes a generic Early Christian 'Greek church', which, according to him has a Greek cross plan and a domed crossing. This model is hardly representative of church architecture in the first centuries of the Byzantine era.²⁸ Another questionable aspect of Cockerell's lecture, regards its treatment of the transition from the timber-roof basilica to 'the domical style' of church architecture. For Cockerell, this development took place under Constantine with the move of the Imperial capital from Rome to Constantinople. Today, we have established that, in fact, this major development was gradual and was not completed before the sixth century.²⁹ Even though these concepts appear to be problematic today, they both proved to be extremely influential in Cockerell's time. Indeed, as we will see, these same *topoi* are often repeated in lectures and publications devoted to Byzantine architecture in the late 1840s.

For all its limitations, Cockerell's lecture remains an invaluable record of the interest in Byzantine Architecture in mid-19th century London. As we will see in the following sections, within the two decades after its delivery, this lecture was followed by several attempts to explore the language of Byzantine architecture.

Dome Construction: Edwin Nash at the London Architectural Society (1847)

Four years after Cockerell's lecture, Edwin Nash, an architect based in London and Kent, delivered a lecture on Cupolas at the London Architectural Society.³⁰ Like Cockerell's lecture, this one does not appear to have been investigated before.³¹ However, it deserves some attention, as it sheds light on the reception of Byzantine architecture in England. Indeed, what may, at first sight, look like an academic, innocuous topic gave Nash the opportunity to provide information about Byzantine domed buildings, which he described with an unprecedented understanding of form and structure.³²

To trace the development of dome construction, Nash provides a catalogue of the most significant domed buildings from the Mycenaean times through the Early Modern period. These include certain examples from the Early Christian and the Byzantine periods. If Cockerell focused on design and type, Nash's treatment of his topic is characterized by an emphasis on materials and structures. Thus, the Mausoleum of Santa Costanza in Rome has a cupola which is 'carried upon coupled columns'. The 'centre cupola [of St. Vitale in Ravenna] is most curiously constructed with hollow jars instead of solid materials. They are made to fit each other in a horizontal direction in such a way as to form a continuous tubular spiral line from bottom to top'. Even the description of Hagia Sophia is construction-oriented: the church of St. Sophia, Nash argues, 'is a grand specimen of the art of raising a vast cupola upon arches, instead of, as in the old Roman buildings, a solid wall'.³³ The same attention to structural issues is observed in the section dealing with the centralised, domed bay which, according to Nash, lies at the heart of most Byzantine churches (**fig. 4**). Nash's description of this element is much more detailed than Cockerell's.

‘the four piers at the angles of the space were connected by four large semi-circular arches . . . then the four angular or spandrel parts between them and above them were filled in with arched work (technically called ‘pendentives’) rising diagonally from the four corners of the plan . . . continuing upwards in portions of a sphere whose diameter is the diagonal of the plan, until they unite above the crown of the arches. . .’³⁴

What was simply ‘an elevation’ in Cockerell’s lecture of 1843, four years later is defined geometrically and structurally in a way that anticipates the work of Auguste Choisy.³⁵

Nash did not only highlight the ingenuity and variety of Byzantine structures but also stressed their potential use as models for new construction. Four years earlier, Cockerell had attempted to establish a link between Byzantium and British architecture through the work of Sir Christopher Wren. Nash refers to another major figure in the history of British architecture: Sir John Soane. He observes that interlocking hollow jars are used in the domes of both San Vitale in Ravenna and Soane’s Bank of England (Consols Office and Five Per Cent Office, 1818).³⁶ Nash uses this similarity to prove that the knowledge of structures such as that of San Vitale can provide a modern architect with ‘useful suggestions for his own practice.’

Nash’s argument regarding the relevance of Byzantine construction to Victorian architects seems more prudent than that of Cockerell. However, both lectures share the same limitations. They rely too much on the stereotype of the cruciform domed church and only touch upon a very limited sample of Byzantine architecture. Many types are neglected and their exact chronology is not discussed. In spite of publications like that of Couchaud (1842), the architecture of Byzantine Greece and Turkey remained little known to London architects in the middle of the 19th century. But this was about to change.

The Books of Alexander Lindsay (1847), John Ruskin (1849-1853), and Robert Curzon (1849)

For all its shortcomings, Nash’s and Cockerell’s ‘discovery’ of Byzantium seems to have stimulated scholarly interest in Byzantium. Indeed, the decade that followed these lectures was crucial in this respect. In 1847, the same year as Nash’s lecture, Alexander Lindsay (1812-1880) published his influential book ‘Sketches of the History of Christian Art’. This contained a substantial section devoted to the Architecture of Byzantium.³⁷ According to Robert Nelson, Lindsay ‘began for England the process by which Byzantine art . . . entered the canon of Western Art’.³⁸ However, this overlooks Cockerell’s earlier efforts in this field. Revisiting Lindsay’s work in the light of Cockerell’s lecture presented above helps to reappraise this work’s originality.

There are some striking similarities between Lindsay’s sketches of 1849 and Cockerell’s lecture of 1847. These similarities start from the general approach to the topic of ‘Christian Art and Architecture’ and include: firstly, the emphasis on the domed cruciform church; secondly, the idea that Byzantine Art can serve as precedent for European Art; thirdly, the choice of case studies and the way in which they are described. For instance, Lindsay’s short reference to Hagia Sophia repeats Cockerell’s observation regarding the use of the great church as a model during the Ottoman period.³⁹ These similarities may either suggest that Lindsay was familiar with Cockerell’s researches or that both scholars drew upon the same sources.

Lindsay's survey also shared the main limitations of Cockerell's lecture: both scholars tried to understand Byzantine Architecture mostly through the churches of Rome, Venice, Ravenna and Hagia Sophia. This same geographical constraint also characterizes John Ruskin's seminal books 'The Seven lamps of Architecture' (1849) and 'The Stones of Venice' (1853).⁴⁰ The reluctance to include Greek and Turkish examples in these major works may not only be associated with the difficulty of access to the monuments but also with a certain bias against this heritage. This is evident in Robert Curzon's 1849 book, 'Visits to Monasteries in the Levant'. Characterising Byzantine buildings as 'small and clumsy', Curzon provides the following advice: 'the student of ecclesiastical antiquities', he states, 'need not extend his architectural researches beyond the shores of Italy'.⁴¹

Lenoir and Couchaud would have probably disagreed with this advice. Published nine years before Curzon's book, Lenoir's pioneering article had revealed the variety and richness of Byzantine Architecture in Greece, Constantinople and Armenia. Couchaud's drawings opened a new window onto the architectural marvels of Byzantine Athens. We have already discussed the possible influence of these works on the lectures of Cockerell and Nash. French publications continued to inform the reception of Byzantine architecture in Britain during the 1850s. Their influence is attested in two lectures on Byzantine architecture delivered at the Royal Institute of British Architects (RIBA).

Exploring Byzantine Architecture at the RIBA (1853-1858)

Founded in 1834, the RIBA was to play an important role in the reception of Byzantine architecture in mid-19th century London. As Frank Salmon has shown, many of the founding members of the Institute were in close contact with foreign academies and desired to cultivate connections with European scholars and institutions.⁴² The cosmopolitan character of the Institute and its receptiveness to foreign Byzantine scholarship are reflected in a lecture given by Thomas Leverton Donaldson (1795 – 1885) at the RIBA in January 1853. Donaldson was Professor of Architecture at University College, co-founder of the RIBA, and the Institute's secretary for foreign correspondence.⁴³ This role enabled him to cultivate links with French, German, and Italian scholars. Donaldson was, therefore, ideally placed to keep track of the development of research in Byzantine architecture in France, and his 1853 lecture echoes this.⁴⁴ Devoted to the 'Gallo Byzantine Churches in and near Perigueux in France', his communication was meant to disseminate the findings of a publication by French Archaeologist Felix de Verneilh (1820–1864).⁴⁵ Published in Paris two years before Donaldson's lecture, Verneilh's work focused on the 11th-century church of St. Front at Perigueux, a building which bore a remarkable similarity to the Basilica of Saint Mark in Venice. The latter's Byzantine traits had become popular in Britain through the publications of John Ruskin, and it is probable that there was a lively interest in this topic.⁴⁶ Verneilh's interpretation of St. Front's as the French counterpart of Saint Mark's must have been seen by Donaldson as an opportunity to shed new light on Byzantine architecture and its impact on Western Europe.

Donaldson began his lecture with a brief examination of Byzantine Architecture, followed by an account of Verneilh's discoveries. The introductory part included brief references to four dissimilar churches. Following brief descriptions of the churches of Hagia Sophia in Constantinople and San Vitale in Ravenna, Donaldson mentioned two more 'exotic' examples: the 10th-century Cathedral of Ani, in Armenia, and the 11th-century church of Sotera Lycodemou in Athens.⁴⁷ One would, perhaps, expect that Donaldson's eclectic

choice of case studies would have challenged Cockerell's stereotypical view of the Byzantine church as a building based on a Greek cross plan. Alas, Donaldson still identifies the 'elementary form of the cross' in most buildings, including Hagia Sophia.⁴⁸ Donaldson's adoption of this *topos* indicates a slightly formulaic treatment of this topic, which should perhaps be attributed to a lack of first-hand knowledge of the buildings.

Donaldson's descriptions of Byzantine monuments were mostly based on secondary sources. These sources can be deduced from the lecture notes in our disposal. Donaldson's choice of monuments echoes the one in Lenoir's article of 1840, examined above. This included the church of Sotera Lycodemou (Athens) which was very little known at that time. In his lecture, Donaldson refers to the public lectures given by Lenoir, whom he acknowledges as the 'learned architect and traveler in the East, Albert Lenoir'.⁴⁹ One year before Donaldson's lecture, Lenoir published his major book, *Architecture Monastique*, which includes many references to Byzantine monuments – some of which were published there for the first time.⁵⁰ Descriptions of monuments in this volume are very similar to those of Donaldson.⁵¹ As for Donaldson's reference to the Cathedral of Ani, this indicates familiarity with Texier's expedition to Armenia and with the famous book that resulted from it and included detailed drawings of this building.⁵² Like previous lecturers, Donaldson was very interested in the work of French scholars in the field of Byzantine architecture.

Five years after Donaldson's lecture, John Louis Petit read a paper at the RIBA entitled 'Remarks on Byzantine Churches'.⁵³ Petit was a clergyman, an architect and a scholar. In 1841, he published his book, *Remarks on Church architecture*. The prologue of the first volume states that church architects should enrich their understanding of church architecture by studying 'examples from other countries'.⁵⁴ Faithful to this dictum, Petit travelled to Athens and Constantinople, where he had the opportunity to study Byzantine churches, which until then were mostly known to English architects through French publications. Based on site observations carried out during this trip Petit's RIBA lecture of 1858 represents the most convincing of all mid-19th century attempts to give an 'accurate and true' introduction to Byzantine architecture.

Petit's paper benefits from a thorough understanding of the geometry and construction of Byzantine vaults. His geometrical description of pendentives, the spherical, triangular segments on which Byzantine domes are often supported, is extremely accurate.⁵⁵ For instance, Petit observes that a pendentive 'is formed by the section of a larger dome than that which it sustains'. The same amount of attention is given to the structural characteristics of domes on pendentives, and particularly the need to counteract the lateral thrusts they generate. 'In domes of a considerable span', Petit argues, 'some sort of abutment must be necessary at every point of the [supporting] arch in a direction at right angles to its plane. This is best furnished by a barrel vault or else by the semi-domical roof of an apse'. Petit's description of the form and function of this quintessential component is more informative than that of Lenoir, whose book was mentioned in the lecture.⁵⁶ For once, London surpassed Paris and the accuracy of the lecture exceeded that of the printed word.⁵⁷

Among the lectures examined in this paper, that of Petit provides the most comprehensive account of Byzantine church architecture, referring to a wide range of building types. His chosen examples include both Early and Middle Byzantine monuments. These include churches that were not mentioned in previous lectures. If some of the members of Petit's

audience had heard about the churches of St. Eirene at Constantinople, and Santa Maria dell Ammiraglio at Palermo, some more obscure examples were probably presented in London for the first time: these included the Middle Byzantine churches of Daphni, Sts. Theodores in Athens and Sts. Jason and Sosipatros on Corfu. The lecturer's treatment of these examples is marked by a unique ability to identify those structural and morphological elements that give each monument a special character.⁵⁸ For instance, his account of Hagia Sophia puts special emphasis on the use of a complex system of abutment made of interlocking arches and semidomes. In the case of Daphni, Petit notices the fact that the dome is supported on eight alternating wide and narrow arches. Our lecturer goes on to compare the configuration of the Daphni church with that in two Wren's churches: St. Paul's cathedral in London and St. Stephen Walbrook, which, according to Petit, 'is perfectly Byzantine in its composition' (**fig. 5**).⁵⁹ These two monuments are a stable point of reference in our lectures. As we have seen, Cockerell had referred to both buildings in the aim to highlight the potential role of Byzantine church architecture as paradigm for new design. Petit shares this aim, but addresses it in a more direct way. His lecture was probably the first attempt to show exactly how to revive the language of Byzantine Architecture.

Towards the end of his lecture, Petit provides detailed instructions for designing a 'Byzantine Revival' chapel. This would be based on the plan of the small Middle Byzantine church of Sts. Jason and Sosipatros on Corfu (**fig. 6**).⁶⁰ This is a two-column variation of the type of the cross-in-square church, and, therefore the dome is supported on two columns and two piers. Petit does not seem to appreciate this asymmetrical arrangement. He therefore proposes to 'cut off what would be to [him] superfluous, and substitute columns for the eastern piers'.⁶¹ The result would have been a typical 'tetrastyle' church just like the ones Cockerell had praised fifteen years earlier. Petit goes on to discuss the building's optimal measurements and detailing. Corinthian columns are chosen as more efficient means of support.⁶² As for the chapel's exterior, Petit suggests that this should be modelled on either the Old Cathedral of Athens, or the church of Hagioi Asomatoi in the same city. It is worth noting that both buildings had been surveyed by Couchaud in the early 1840s, and would be revisited by Schultz and Barnsley, thirty years after Petit's lecture.⁶³

Thanks to Petit's lecture at the RIBA, part of London's architectural community was introduced to the language of Byzantine Architecture and invited to emulate it in the design of new churches. At this point, one could ask if Petit's invitation had any real impact. James Cubitt's influential work 'Church Design for Congregations', published twelve years after the lecture, seems to suggest that Petit's call for the revival of Byzantine architecture did not remain unanswered. Echoing Cockerell and Petit, Cubitt criticises the basilican form for its interior's lack of visibility and is favorable to the use of the Middle Byzantine cross-in-church as a model.⁶⁴ To illustrate the qualities of this type, Cubitt published the plan of the church of St. Philip the Apostle at Sydenham (**fig. 7**).⁶⁵ This had been designed and built in 1867 by none other than Edwin Nash, the author of the second lecture we examined. Combining a Greek cross plan with that of a cross-in-square church, this 'tetrastyle' building raises the possibility that Petit's instructions had an influence on the design practice of his day. However, we must also take into account that any similarity between the Byzantine four-column plan and the arrangement of Nash's church remained conceptual. As the Building News journal reported, St. Philip's was constructed with alterations. The journal's editor praises the removal of Nash's four corner bays, which he describes as 'box-like projections', and welcomes their replacement by 'proper' aisles.⁶⁶

These changes removed any Byzantine influences from the design of this church. However, the die was cast. Nash's original design indicates a clear desire to experiment with Byzantine models in a way that foreshadows the revival of Byzantine architecture three decades later.

Conclusion

Our examination of the lectures on Byzantine Architecture delivered by Cockerell, Nash, Donaldson and Petit sheds new light on the reception of Byzantine Architecture. Passing from one lecture to the other, we followed, step by step, the gradual discovery of Byzantine church forms and structures by London's architectural community. The work of French scholars seems to have influenced the early stages of this discovery. It is doubtful whether Cockerell and Nash would have had enough material for their lectures without the pioneering work of Texier, Couchaud and Lenoir. It was through these French publications that many British architects were introduced to the architectural language of Byzantium. By 1858, London's architects had access to drawings and surveys of a wide range of Byzantine monuments. The lectures we examined did not simply reproduce this work but used it to develop an idiomatic approach to Byzantine architecture. This approach was more 'architectural' than 'historical'. Most of the lecturers insist on form and structure as opposed to issues of chronology. Byzantine heritage tends to be viewed primarily as an alternative design language to that of the Gothic Revival, the dominant style at the time. To reinforce this case, our lecturers interpret Byzantine church models as precedents for some of the most iconic churches of Baroque London designed by Wren. This interpretation has not received sufficient scholarly attention and deserves further investigation as it may shed new light on both the origins and reception of Wren's work. From our perspective, this same claim is simply indicative of an increasing familiarity with the monuments of Byzantium and a growing awareness of their timeless, universal qualities.

¹ Χλέπα 2011. See also Kotoula 2015: 75-102.

² Nelson 2004: 51-72.

³ Nelson 2004: 51. The first scholar to challenge this notion was Χλέπα 2011: 20-22.

⁴ For Cockerell's lectures at the Royal Academy, see Watkin 1974: 105-132. This study focuses on Cockerell's approach to the Classical language of Architecture, and does not discuss his interests in medieval architecture.

⁵ See Watkin 1974: xix.

⁶ Watkin 1974: 12-13.

⁷ *The Builder*, Vol. 1, March 4, 1843: 44-45.

⁸ C. R. Cockerell (1843), lecture notes, 'The history of Christian architecture, including references to basilicas, the Emperors Constantine and Justinian and Greek forms of church buildings', the Cockerell Family Papers Coc\1\107\5, pp. 1-16, RIBA Archive, British Architectural Library, London.

⁹ Extensive references to Cockerell's Royal Academy lectures occur in Watkin 1974: 105-132 and Bordeleau 2014: 21.

¹⁰ Cockerell, RIBA Archive, Coc\1\107\5, p. 5.

¹¹ Cockerell, RIBA Archive, Coc\1\107\5, p. 10.

¹² See Cockerell, RIBA Archive, Coc\1\107\5, p. 1.

¹³ See Bordeleau 2014: 2.

¹⁴ See Cockerell, RIBA Archive, Coc\1\107\5, p. 15.

¹⁵ See Cockerell, RIBA Archive, Coc\1\107\5, p. 10.

¹⁶ Salzenberg 1854: 46-110.

¹⁷ Nelson 2004: 116.

¹⁸ Lenoir 1840: 7-17. Lenoir's brief survey of Hagia Sophia was probably based on Texier's work.

¹⁹ Cockerell may have also had access to descriptions of Hagia Sophia in travel accounts such as that of Corneille Le Brun. The latter had been used by Thomas Sandby, one of Cockerell's predecessors, in his lectures for the Royal Academy. See Le Brun 1700: 40-41. For the use of Le Brun's book in Sandby's lectures at the Royal Academy, see Summerson 1984: 135-149.

²⁰ See Cockerell, RIBA Archive, Coc\1\107\5, pp. 10-15

²¹ For further information about the Middle Byzantine, cross-in-square church, see Mango 1978: 338.

²² Couchaud 1842.

²³ See Lenoir 1840: 7-17.

²⁴ The relevant section of Cockerell's lecture is as follows. The Byzantine 'tetrastyle' church, he argues, 'is one [type] which the learned [Sir Christopher Wren] often employed so frequently in the City of London. Nor can it be doubted that he adopted this form on the basis of the authorities which we here find so sound and so conclusive'. See Cockerell, RIBA Archive, Coc\1\107\5, p. 15.

²⁵ This surprising statement occurs both in the lecture notes in the 'Cockerell Family Papers' and in the summary of the lecture in *The Builder* (Vol. 1, March 4 1843, pp. 44-45). According to this summary, Cockerell traced the path through which the influence of the Byzantine domed basilica reached Medieval and Renaissance Europe and, eventually, Baroque London.

²⁶ At this point, we should also take into account the information about Byzantine architecture that Wren had in his disposal. This was very limited and hardly gave the Baroque architect anything more than a few superficial indications about the form of Byzantine churches. For Wren's understanding of Byzantine Architecture in the Eastern Mediterranean, see Griffith-Jones 2010: 135-175.

²⁷ Cockerell's knowledge of this type seems to have been shaped by buildings he may have visited during his trips to Rome from 1815 to 1817.

²⁸ For an excellent description of the variety of Constantinian Architecture, see Krautheimer 1986: 69-91.

²⁹ Mango 1978: 86.

³⁰ According to Brodie (2001: 241), Edwin Nash (1814-1884) was a pupil of Samuel Robinson (1752-1833) and George Maddox (1760-1843). He also worked in the office of Sir Gilbert Scott, before setting up his own practice. Today, he is known mainly as the architect of two small Gothic Revival churches in Kent: All Souls' in Crockenhill (1851) and St. James' in North Cray. For All Souls' church, see Newman 1969: 241. For further information about London Architectural Society (founded in 1806), see *Essays of the London Architectural Society*, London 1808.

³¹ A record of this lecture is preserved in the RIBA archive: E. Nash (1847), 'Remarks on cupolas', LAS.4/2, RIBA Archive, British Architectural Library, London.

³² Nash may have chosen this topic under the influence of Cockerell. Indeed, he refers to his eminent forerunner and even repeats some of his ideas.

³³ See Nash, RIBA Archive, LAS.4/2, pp. 30-40.

³⁴ See Nash, RIBA Archive, LAS.4/2, p. 38.

³⁵ Choisy 1883.

³⁶ See Nash, RIBA Archive, LAS.4/2, p. 42. Nash probably drew this information from Lenoir 1849: 9. According to Lenoir, in the dome of San Vitale '...ces vases enfilés les uns dans les autres, forment d'abord la base de la voûte, puis la courbe, se continuant sans interruption et en spirale, arrive ainsi au sommet de la coupole.' For a more recent reference to the structure of the dome of San Vitale, see Mauskopf Deliyannis 2010: 229. For Soane's use of hollow jars in the Bank of England, see Dunster and Russell 1983: 69.

³⁷ Lindsay 1885 (first published in 1847): 241-246.

³⁸ For a thorough analysis of Lindsay's approach to Byzantine Art, see Nelson 2004: 54-57.

³⁹ Lindsay 1885: 242.

⁴⁰ Ruskin 1851-53.

⁴¹ Curzon 1849 (reprinted in 1955): 25-33.

⁴² Salmon 1996: 78.

⁴³ Weidmann 2014: 14.

⁴⁴ Donaldson (1853), manuscript lecture notes, 'Some Remarks on a certain class of Gallo-Byzantine Churches in and near Perigueux in France', MS.SP/11/10, RIBA Archive, London.

⁴⁵ De Verneilh 1851: 13-18.

⁴⁶ Ruskin 1851-1853.

⁴⁷ Donaldson, RIBA Archive, MS.SP/11/10, p. 8.

⁴⁸ Donaldson, RIBA Archive, MS.SP/11/10, p. 4.

⁴⁹ Donaldson also mentions that he was asked to translate Jules Gailhabaud's volume, *Monuments Anciens et Modernes* (Paris, Firmin Didot, 1857), which featured contributions by Lenoir.

⁵⁰ Lenoir 1852: 97-403.

⁵¹ Donaldson repeats Lenoir's observations of the cruciform element in the plan of Hagia Sophia, the octagonal form of the church of San Vitale, as well as the drum windows of the church of Sotera Lycodemou (see Lenoir 1852: 266).

⁵² Texier 1842: plate 18.

⁵³ Petit (1858), manuscript lecture notes, 'Remarks on Byzantine churches', Collection of Papers read at general meetings, 1835-1858, MS.SP/13/21, RIBA Archive, London.

⁵⁴ Petit 1841: vii.

⁵⁵ See Petit, RIBA Archive, MS.SP/13/21, pp. 2-4.

⁵⁶ Lenoir (1852: 327) fails to define the exact geometry and structural role of the pendentive.

⁵⁷ Petit's attention to geometry and structure foreshadows Choisy 1883: 87-97.

⁵⁸ Petit, RIBA Archive, MS.SP/13/21, pp. 14-40.

⁵⁹ Petit, RIBA Archive, MS.SP/13/21, p. 33.

⁶⁰ This church has been dated to the period between the late 10th and the 11th century. For a discussion of this chronology and an excellent description of this building, see Βοκοτόπουλος 1969: 149-174.

⁶¹ Petit, RIBA Archive, MS.SP/13/21, p. 42.

⁶² Petit (RIBA Archive, MS.SP/13/21, p. 42) states that 'the Corinthian [order] is to be preferred to the . . . Doric because in this order, the abacus is without support from beneath, while they bear much of the weight above'.

⁶³ Couchaud 1842: 1-16, pl. 7 (Hagioi Asomatoi), pl. 1 (Old Cathedral). For Barnsley's preliminary plan of the church of Hagioi Asomatoi, see S. Barnsley (1888-1890), 'Hagioi Asomatoi', plan, BRF/01/01/01/020, Archive of the British School of Athens (BSA).

⁶⁴ Cubitt 1870: 30.

⁶⁵ Cubitt 1870: pl. V, p. 36.

⁶⁶ See 'The Church of St. Philipn Sydenham', *Building News and Engineering*, March 8, 1867: 174-177.

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Illustrations

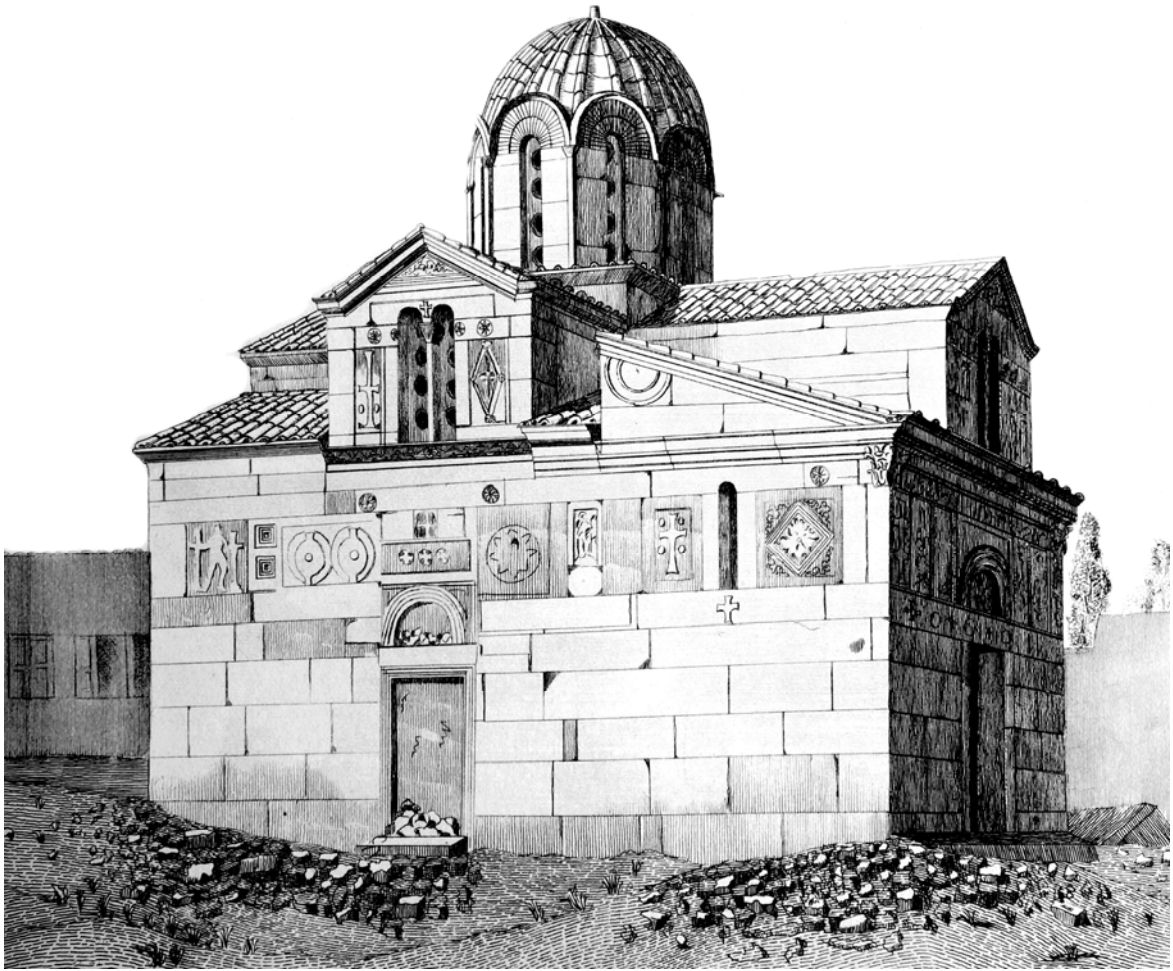


Figure 1. View of the 'Old Cathedral' of Athens, from Couchaud 1842: plate 1.

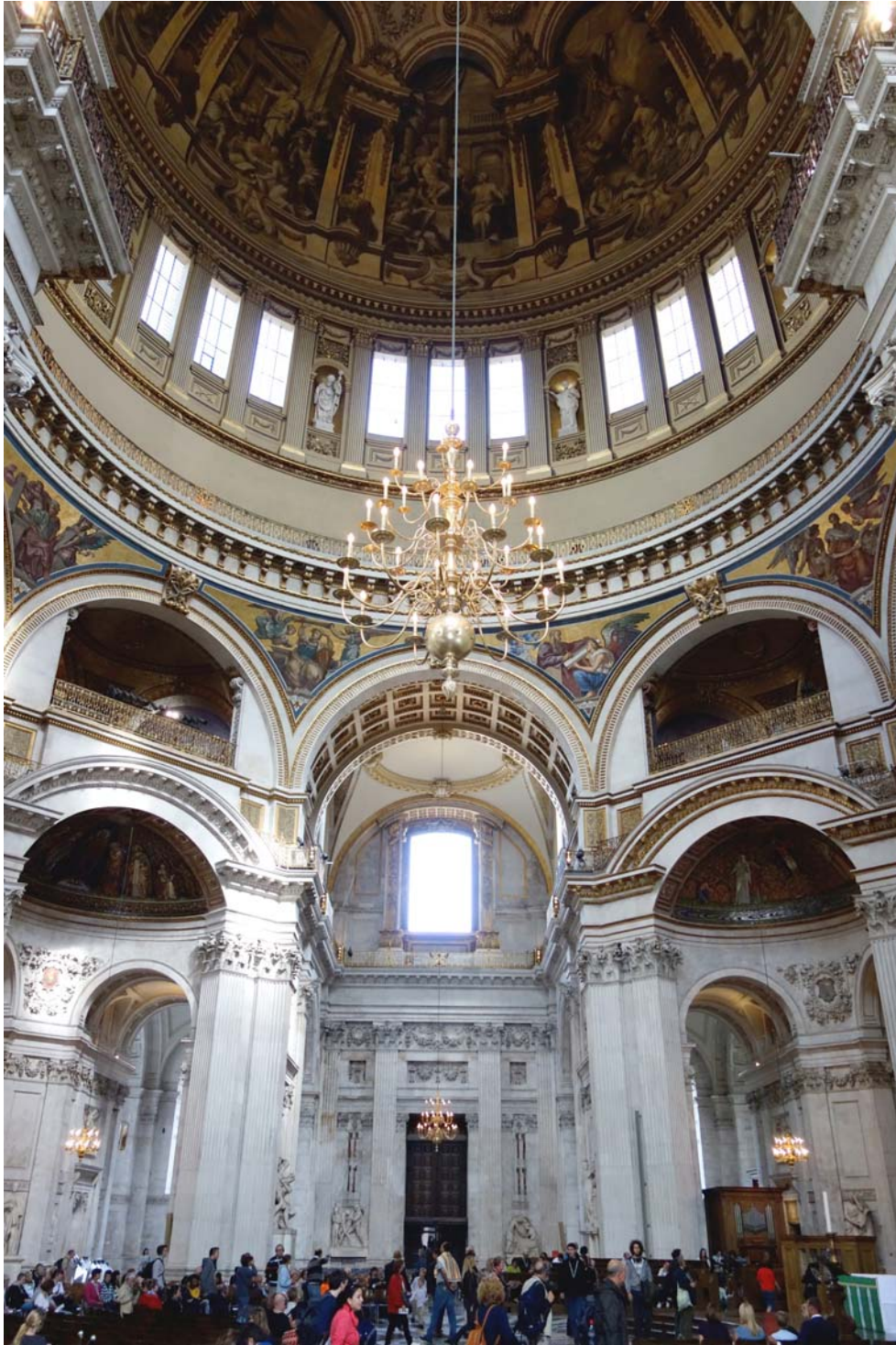


Figure 2. St. Paul's Cathedral in London (Sir Christopher Wren, Architect), view of the crossing, author's photo, 2013.



Figure 3. Church of St. Martin in Ludgate Hill in London (Sir Christopher Wren, Architect), view of the four-column arrangement in the interior, author's photo, 2017.

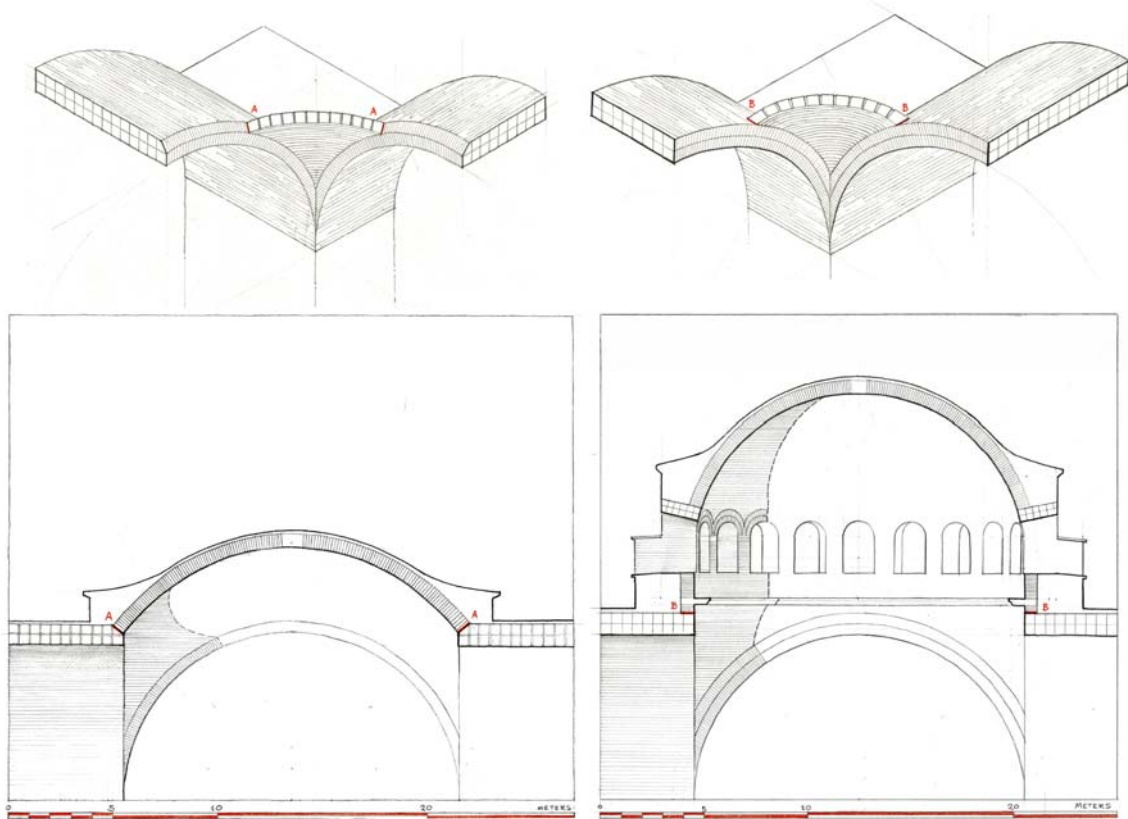


Figure 4. Sections and interpretive axonometric drawings of the two main spherical vaults of St. Eirene at Constantinople, author's drawing, 2009.



Figure 5. Church of St. Stephen Walbrook in London (Sir Christopher Wren, Architect), view of the interior showing the support of the dome on eight columns, author's photo, 2017.

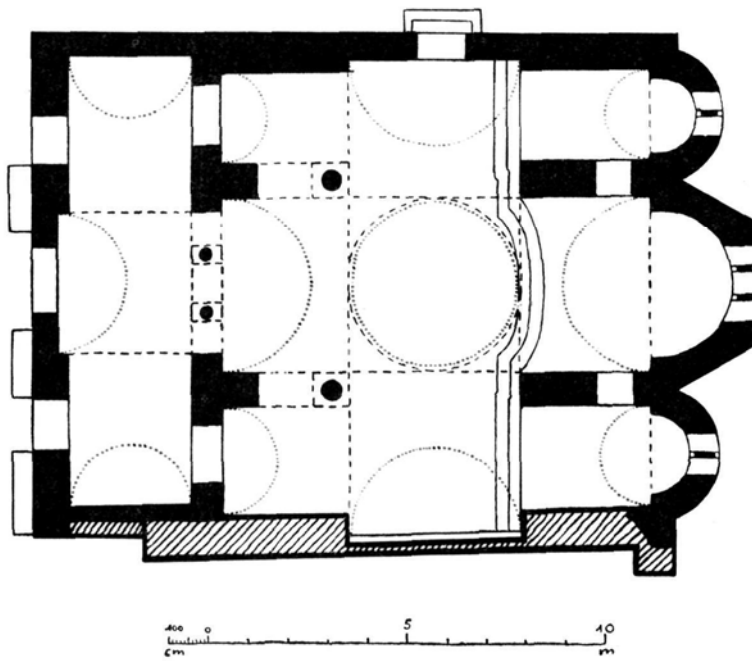
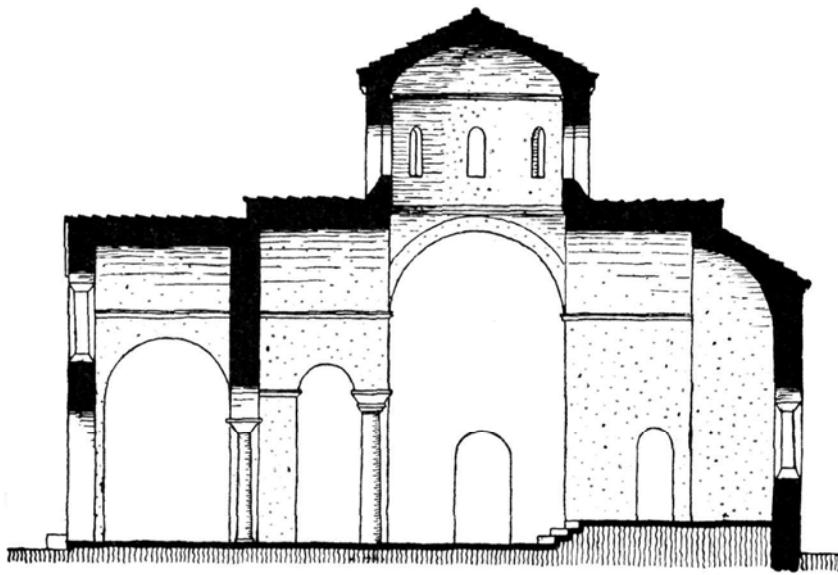


Figure 6. Church of Sts. Jason and Sosipatros, plan and longitudinal section, from Βοκοτόπουλος 1969: 152.

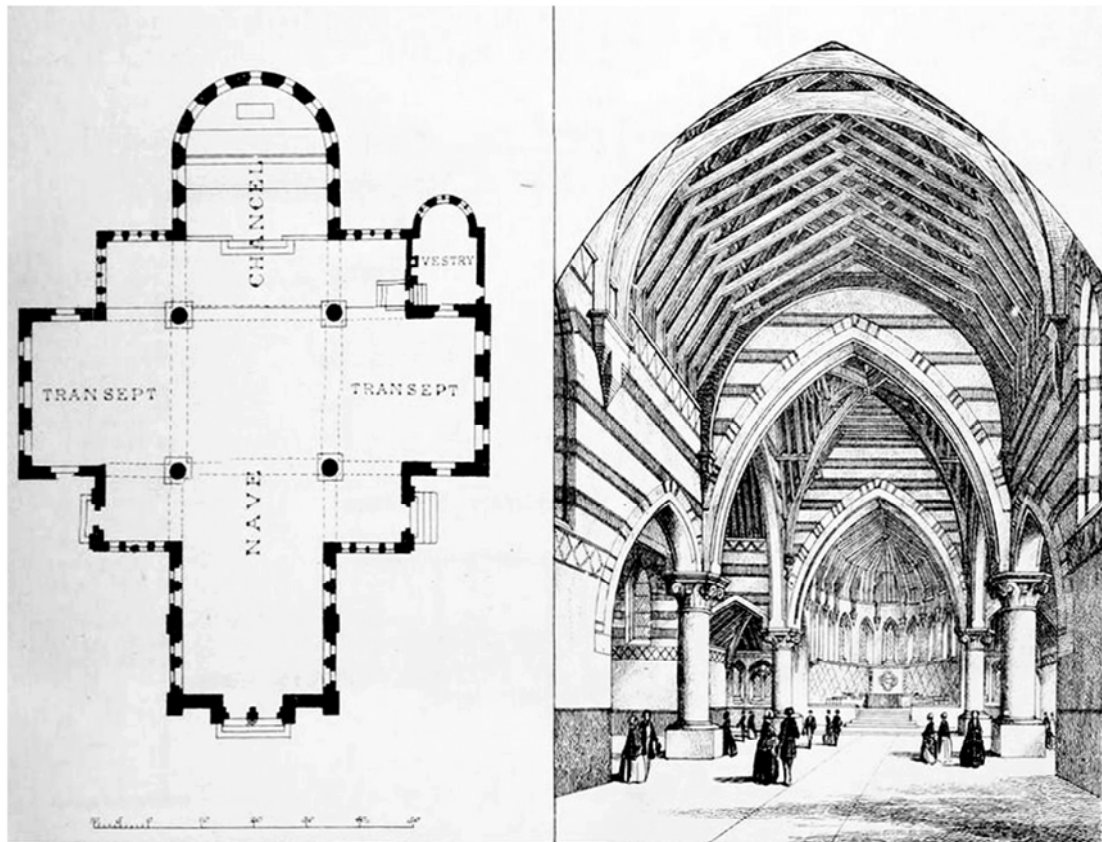


Figure 7. Church of St. Philip at Sydenham (Edwin Nash, Architect), preliminary plan and view of the interior, from *Building News and Engineering*, March 8, 1867: 177.