METAPHYSICAL ARCHITECTURE

Clive B Fenton

Clive B Fenton graduated with a First Class Honours degree in Architectural History from the Department of Architecture in 1997. In 1998 he received a MSc with distinction from the Department of History. He began studying for a PhD at the University of Edinburgh's Department of Architecture in 1998. The field of research is the 20th century architecture of the University of Edinburgh.

Introduction

When Erwin Panofsky's *Gothic Architecture and Scholasticism* was published in 1957 it had a discomforting effect on many architects. The profession's habitual dismissal of medieval builders as ignorant clods who wandered around piling up lumps of stone as best they could was no longer tenable. Panofsky unintentionally demonstrated that artistically, ethically, philosophically and professionally, the medieval architect warranted a status to match, or perhaps even surpass, that of his twentieth century counterpart. Romanesque and Gothic architecture were shown to be more than merely phases in the evolution of construction; they were, Panofsky claimed, the outcome of two distinct phases of Scholastic thought. He went on to demonstrate that the architectural forms of the Middle Ages are expressions of meaning and were ordered by philosophical methods.

Contemporary architects soon adjusted to this by likening themselves to the medieval architect in their ability to reflect philosophical ideas through their work. The worst excesses of this tendency are still in evidence when obscure 'beliefs', arcane 'philosophies' or incomprehensible artistic agendas are cited as conceptual justification for this or that building design. These accounts could rarely be considered philosophical but might make reference to some, real or imagined, philosophy. However in my experience, architects, like conceptual artists, are aloof to criticism of their theoretical underpinning and, in this respect, differ from their Gothic forebears.

Something of a historical cliché was also derived out of Panofsky's book. Romanesque architecture was considered the outcome of early scholasticism, and reflected a Platonic outlook, while Gothic emerged in the period of high scholasticism, when Aristotle was considered 'The Philosopher'. The main problem with this assertion is that Gothic had already succeeded Romanesque before the full force of the *Corpus Aristotelicum* - heralded by the provocative *Sic et Non* of Abelard[1] - was felt in the thirteenth century.

Another problem is that the 'Platonism' of the scholastics did not have all that much to do with Plato as we might understand him today, but was in fact Neoplatonism - a metaphysical outlook which became the preoccupation of early Christianity. This involved a concerted attempt to incorporate fragments of Plato, commentaries on his work, the writings of his followers and a variety of mystical texts. Panofsky's translation of Abbot Suger's writings gives us a glimpse into the workings of the mind of a Neoplatonist.[2]

What Panofsky was really describing in *Gothic Architecture and Scholasticism* was the ascendance of rationality and systemisation in European civilisation. This amounted to a 'renaissance' of classical ideas and he used architecture to illustrate this. Of all Panofsky's many cogent parallels, between scholastic ideas and the ecclesiastical architecture of the Middle Ages, the Neoplatonic influence is the most compelling. Suger created a Neoplatonic interior at St. Denis and I feel that the transition in architecture from Romanesque to Gothic can also be understood as the builders coming to terms with Neoplatonic concepts.

Neoplatonic Sources

As I have stated, the corpus of knowledge which dominated European thought from the third century until the ascendancy of Aristotelian logic in the thirteenth century was drawn from a variety of sources. This included the few of Plato's writings which were available together with the thoughts of his followers and commentators and also those of ostensibly rival systems, including fragments of Aristotle. These texts were read and discussed within a network that spread from the Middle East through North Africa and Spain into Western Europe.

Although the rise of Islam contributed to a decline of Christianity, the early non-dogmatic phase of that new religion allowed the proliferation of a predominantly Hellenistic philosophical discourse in centres where tolerance prevailed. In such centres of learning as Cordoba and Toledo Arabic and Hebrew manuscripts of Greek originals and subsequent commentaries were translated into Latin. Scholars of the monotheistic faiths shared a common debt to Plato and his followers and, thus, the dominant modes of speculative enquiry are termed Neoplatonism.

Significantly, for this discussion, the principle Platonic text of this era was the *Timaeus* which refers to the creation of the universe by the Demiurge; a term derived from the Greek word for craftsman. Thus, the universe could be considered the original work of architecture and Man's efforts in architecture could be said to echo that divine precedent. The Latin translation and commentary on *Timaeus*, by Chalcidius, raised the important principle of *causality* and, thus, initiated the search for legitimate causes for phenomena. This stimulating enquiry regarding the cosmos and its origin resulted in a vast

output of conjecture throughout history and was a continuing stimulus to creative thought. Occasionally suppressed by dogma, it remains nevertheless the foundation of scientific discovery.

Interestingly, in contemporary, post-functionalist architecture there is a tendency for an architectural concept to be justified by reference to an architect's theory of the meaning of the universe. No matter how banal the original brief might have been.

Plotinus

Neoplatonism really began with Plotinus (204-270 AD). Born in Egypt he studied in Alexandria and joined an expedition to study the religions of Persia before finally settling in Rome. Writing during the collapse of the Roman Empire and the onslaught of barbarism, he regarded these cataclysmic historical events as belonging to a world of 'mere appearance'. He was only interested in matters transcending the temporal. 'Reality', for him, resided in Plato's world of ideas: an eternal world where truth and beauty reigned supreme. This realm represents the fundamental reality, lying beyond the scope of the deceptive senses, yet supporting the world of appearances. Christians came to regard this perfect 'kingdom' as Heaven.

If the created world is a copy of the eternal world then architecture is necessarily at one remove from reality. For Christian Neoplatonists engaged on architectural undertakings there became an imperative to rely on divine principles - if they could at all be ascertained.

The writings of Plotinus were edited and presented as the *Enneads* by his friend Porphyry who had strong Pythagorean leanings.[3] The metaphysics of Plotinus was based on a holy trinity comprised by: the one, the spirit and the soul.

The one is supreme, transcending mere being, it has no predicates only existence - existence not being a predicate. Described as either "God," or simply as "The Good," the supreme is present through all things and is indefinable. The second person of the trinity, which he calls the "Spirit," or "Nous," is a non-physical operator dealing in abstractions e.g. mathematics and geometry. Thus, "God" is the light giver and "Nous" is what is illuminated. The third person, the "Soul," is the child of the divine and the creator - or perhaps we might regard it as the perceiver - of the sensible world. Plotinus regarded the "Soul" as essence and therefore immortal. But as the human soul is chained to the body truth is obscured. However, Plotinus believed that, through meditation, one can reach the divine mind of God. He describes his state of transcendental ecstasy as standing outside his body and seeing true beauty.

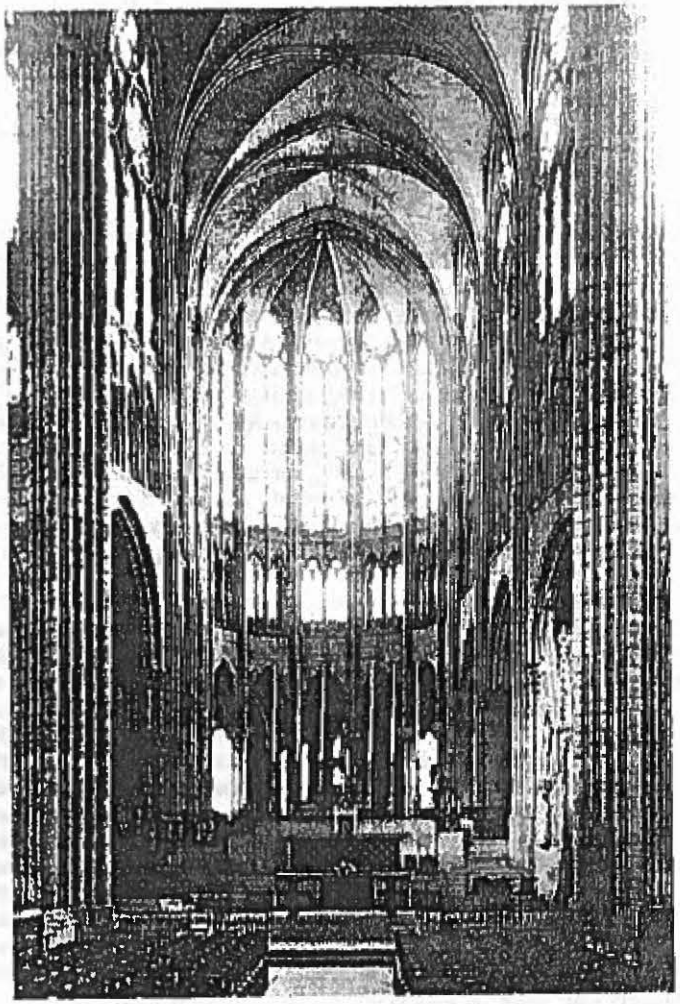

Figure 2. The Abbey of St.Denis near Paris. The thirteenth century sanctuary: the 'Metaphysics of Light' in practice. The ribbed detailing helps to express the dynamism of the structure that enables the soaring height and large window openings. Thus enabling the stained glass which is both didactic in terms of content and evocative of a transcendental state by virtue of the jewelled light.

We can see, therefore, that the writings of those who attained that transcendental state would be considered a source of truth, of reality. An architectural programme based on such revelatory texts would surely be considered valid and based upon divine principles. Triparticism in architectural composition is a manifestation of a Christian conception derived from Plotinus. Furthermore, the architect, by virtue of his use of Mathematics and Geometry, can be said to be engaged in a spiritual exercise. Of course the child of the "Supreme" is associated with the figure of Christ who is frequently portrayed as the architect of the sensible world: the pantocrator. This being, the "Soul," mediates between temporal and divine realms and, therefore, serves as an example and would appear to offer salvation.

St. Augustine, Proportion and Music

Although he was a pagan, Plotinus's metaphysical system was legitimised for Christianity by its consistency with the thoughts of St.Augustine of Hippo - one of the early 'Doctors of the Church.' Like the *Eannids*, St.Augustine's *City of God* (412-427) can also be considered as consolation for the sack of Rome by the Goths and, by analogy, for the inevitable destruction of all earthly things. He too cites Plato in declaring the sensible world inferior to the eternal. Augustine (354-430) was already a Platonist when he converted to Christianity and his writings express a Pythagorean approach to art. In *De Musica* St.Augustine described music as the science of good modulation and explains how musical harmony conforms to mathematical rules. Musical units can be explained as points on a line; consonance can be expressed as simple ratios i.e. 1:1 = Unison, 1:2 = Octave, 2:3 = Fifth, 3:4 = Fourth: the Perfect Intervals. The perception of harmony is regarded as the soul's recognition of the means by which the universe is created out of chaos. Consequently the use of perfect ratios in architecture and music lends the soul to awareness of universal harmony. Dealing specifically with metre, he promulgated the view that architecture and music are sister arts: music articulated by systematic division of time and architecture by systematic division of space.[4]

The lodge book of Villard de Honnecourt (active 1225-1250), who was trained at the Cistercian monastery of Vaucelles, shows a plan for an ideal Cistercian church. This plan demonstrates the application of Augustine's insistence on a harmonic relation between parts. The square bay of the side aisles is used as a module and: the ratio of length of church to length of transept is 2:3 (a fifth); the ratio of side aisle to nave and the ratio of length to width of the transept is 1:2 (an octave); the ratio of length to width of the choir is 3:4 (a fourth); the ratio of width of choir to that of the nave plus side aisles is 4:5 (a major third); the bays of the crossing relate to each other as a ratio of 1:1 - the ratio of unison. The unison is significant in three dimensions as within the cube there are contained

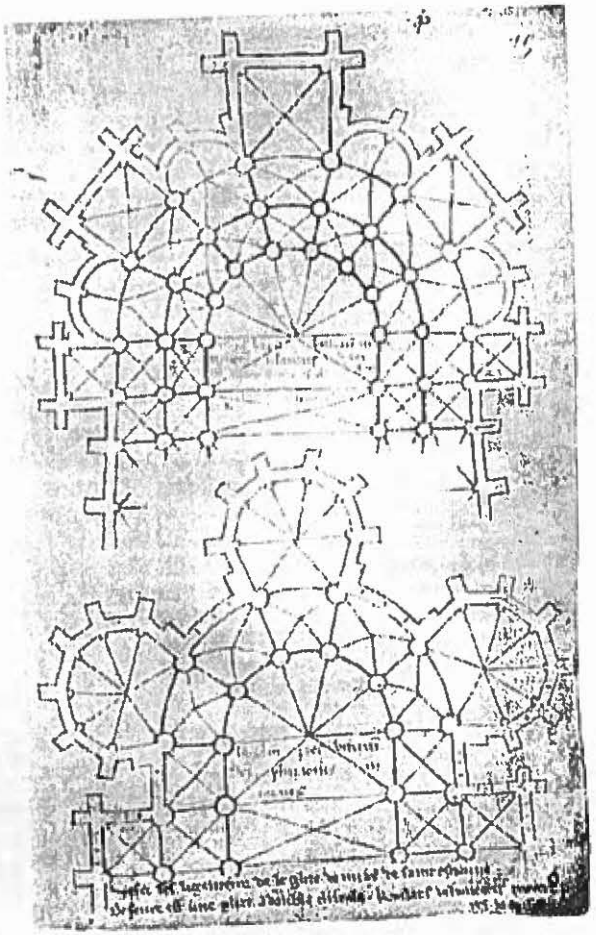

Figure 1. An illustration used by Panofsky. A page from the lodgebook of Medieval architect Villard de Honnecourt held in the Bibliotheque Nationale, Paris. These are ideal groundplans for a chevet. Structural arrangements, functional groundplan and cosmological symbolism are united under the discipline of geometry.Villard may have worked at Cambrai an Rheims.

all the possible ratios and, thus, all the musical tones. It also contains the geometrical potential to develop commensurable and incommensurable proportions. The latter type was considered to be of great mystical significance.

This abstract conception of spatiality permits of an architectural theory consistent with Plato's laws governing the composition of matter.[5]

Functionally the church is a place for worship and the liturgy which shaped Christian architecture was based on the Mass, a musical form. Such architecture is often regarded as a sounding board for sacred music. In the development of classical science the study of *Acoustics* preceded that of *Music*.[6] the musical form followed the function of acoustic evocation.

John the Scot,[7] the translator of Pseudo-Dionysius, drew analogies between music and cosmic harmony, just as Plato regarded temporal music as a distant echo of the music of the heavenly spheres. The Church's cultivation of polyphony as successor to the monody of plainsong in the 12th Century suggests Neoplatonic musical principles being applied at the same time as the nascence of Gothic architecture.

Boethius, Mathematics and Divine Reason

Boethius (480-526 AD.), another Neoplatonist, was extremely influential. His approach pre-empts medieval Christian theology in asserting that all rational thought is underpinned by faith in a benevolent and omnipotent God coupled with a belief in the authority of the ancient philosophers. He framed many formal terms and concepts and the scholastics employed his method and techniques. His works on education were seminal to Scholasticism and he provides the link between the academy of Plato and the Latin schools of the West.

Boethius apparently had at least some concern for temporal matters as he served as senator to Theodoric, the Goth King of Italy, and wrote *Consolations of Philosophy* (while awaiting execution for treason). He derives his cosmology and metaphysics from Platonic sources and his logic and natural science from Aristotle. His translations of *Categories* and *De Emendatione* were the principal texts of Aristotle available in Europe until the twelfth century. Because of his translations and interpretations, Aristotle was primarily regarded as a dialectician.

Boethius also translated Euclid and Ptolomy from Greek into Latin as well as writing commentaries on music, mathematics and geometry and books on formal logic and theology. As a practical aid to building Euclid's importance is immeasurable and his *Elements* was the principle textbook of the masons' lodges. Until the twelfth century Boethius's translation of Euclid was the most

comprehensive text on geometry available. It is surely of great significance that the fuller translation by Adelard of Bath (circa 1120) was rapidly disseminated amongst monastics and architects just as architecture was becoming far more sophisticated and ambitious. This was the transitional period from Romanesque into Gothic when superior structures involving more complicated geometry based upon pointed arches and vaults began to be built.

Central to Neoplatonic metaphysics is the belief that the objects of mathematical science are timeless and invariable. The attainment of mathematical understanding reveals that man's reason is divine and it is his prerogative to reproduce, in his own works, the beauty and harmony of the cosmos. An important source must have been the discourse of *Timaeus*, especially its second and third premises for the nature and scope of physics:

> Whatever comes to be must have a cause therefore the world has a cause - a maker and father but he is hard to find.
> The work of any maker will be good only if he fashions it after an eternal model.[8]

The idea that generated designs are bad but that those based on an ideal model are good, together with the view that the world is fashioned on the model of that which is comprehensible by rational discourse, is a prescription for geometric design. Thierry of Chartres explained the mystery of the Trinity by the geometry of the equilateral triangle and he explained the relationship of the Father to Son in terms of the square.

The concept of Logos, as the mediator between the corporeal and the divine, finds geometric expression in the vesica - the union of two circles in the act of creating a third. It found application in both graphic design and as a generator for complex planning. Images of Christ, and of the Virgin, are often framed by a vesica because it expresses the union of the physical and the divine. Since the building is a corporeal manifestation of divine truths it would make sense to a Neoplatonic architect to generate a plan from two circles thus intersecting. The vesica, here, would represent a hypostatic union of the finite and infinite.

While mere words can be ambiguous, the pursuit of architectural perfection was based on geometrical truths and this could be shown by the revelation of an ineffable harmonic proportion. Church buildings, therefore, represent the underlying and eternal reality. Since an essential geometry is illuminated by the architect he occupies the role of light giver - like God! That which is illuminated (nous) is essence. Thus, the essence of beauty is proportion and the perception of truth is transcendental.

The Scholastics

Scholasticism had its roots in the monasteries of the Dark Ages, from the fall of the Western Empire until the Carolingian period, when they were the repositories

of learning and the preservers of the surviving texts of Classical Antiquity. The dogged faith and persistence of these monks laid the foundations for an intellectual renaissance which blossomed with the alliance, in 800 AD, between the Pope and Charlemagne. The Frankish conqueror of the Lombards and Saxons was illiterate, but pro-cultural, and sponsored and indulged scholars. Alcuin, for example, aided the revival of Latin letters by setting up many scriptoria under the patronage of Charlemagne.[9]

By the end of the eleventh century the growth of cathedral schools, urban schools and professional itinerant teachers created a substantial demand for texts dealing with philosophy and the liberal arts. Cluniac scholars are known to have studied in Toledo where Archbishop Raymond instituted a college of translators. Other important centres by the eleventh century were Palermo, Bec, in Normandy, and Monte Cassino in central Italy.[10] The area known as Ille de France became the epicentre of scholastic activity with schools at Laon (specialising in theological doctrines), at Paris (logic, dialectics and speculative theology), Chartres (letters, mathematics and Platonic philosophy), Orleans (Classical literature and grammar) and Rheims (theology).

The art historian Von Simson identifies two movements within scholasticism: the intellectual and speculative which emanated from the Platonists at Chartres, and a spiritual ascetic movement emanating from the reformist monks at Citeaux[11]. Occasionally these movements were in conflict as, for example, when Abelard represented the former and St. Bernard the latter.

Scholasticism as a term defines the type of method employed: *quaesto, disputatio & sentencia* (question, argument and conclusion) and the aim of the scholastics was to structure theology into a coherent system. The materials at their disposal were the Gospels, the heritage of Hellenistic philosophy and Roman works on rhetoric and law. The scholastics served their age by pushing back dogmatic orthodoxy to embrace the speculative sciences, unintimidated by taboos concerning 'magic' symbols or 'heathen' ideas.

The Scholastic movement produced four ways of interpreting the Gospels: *literally*, as a historical narrative; *allegorically*, in which Christ represents mankind; morally, by which the psychology of good and evil can be understood, and the *anagogic* method, which belongs to the mystical tradition, by which the relationship of the soul to God may be understood. In respect of the latter, the concept of Logos was a contentious issue which absorbed many theologians. It was often described simply as 'The Word' by which the creator commanded universal order. For Plato, Logos meant the principle which brings the *many* back to the *one* i.e. unity. This Platonic principle offers hope to those trying to achieve union with God since it asserts that we all can participate in him. It does, however, also have pantheistic implications.

Abelard, who initially studied theology at Laon, believed that the primacy of the scriptural Logos (The Word) proved the dignity of logic and that, therefore, nothing could be infallible except the Scriptures; everything else being susceptible to reason. St. Bernard wrongly accused Abelard of claiming that it was possible to know the mind of God and that he (Abelard) 'sweated' to prove Plato a Christian.

Assessing the influence of all this activity on architectural style seems to be a matter of ascertaining how scholastic concepts affected the aspirations, not only of architects, but of medieval society as a whole. Since ecclesiastical art had primarily a didactic function it could avail itself of literal, allegorical, moral and anagogic approaches to meaning.

Panofsky proposes that the great flowering of Gothic art resulted from the scholastics abandonment of the fundamental Platonic principle of Universalism in favour of Nominalism. That is to say: universal terms came to be regarded as merely an abstraction of the mind with only individuals actually existing. This problem over the status of universals had dogged Boethius and was the major metaphysical disputation of the early Middle Ages but Abelard, framed the plausible solution by differentiating ideas from that which actually exists. The apparent proto-humanism detectable in Gothic sculpture is, thus, attributed to an interest in representing particular individuals, rather than universals, and is seen as evidence of the rejection of Plato in favour of Aristotle. This change of attitude towards the universe and mankind roughly coincides with the transition from Romanesque into Gothic architecture which gives substance to Panofsky's theory.

However, I believe other ideas have to be taken into account, not least because of the fact that the main body of Aristotle's works did not enter the faculty of arts at Paris until 1255. While the metaphysics of the philosophers is intellectual and elitist and deals in abstract matters, Christianity, as a way of life, developed a far broader appeal which carried it into its militant phase bringing about the 'Age of Faith,' which the great Gothic cathedrals celebrate, as well as the massive undertakings of the Crusades. These vast enterprises involved the participation of far more than a small group of intellectuals.

A specific task for the scholastics was the conciliation of Judaic revelatory law and Greek speculative theology. While Plato considered the whole universe ensouled and participating in God, the strength of the Hebrew tradition was in its casting of God as a historical character with a specific relationship to Man. In that tradition meaning and purpose is bestowed upon individual persons by virtue of God's divine meaning and purpose. Thus, to do God's will is to have meaning and purpose. This, the concept of *Figura*, is as likely to have been responsible for the developing interest in individuality and psychology as the primacy of nominalism.

The praxis for those faced with rebuilding a burned or dilapidated church was that God, the Virgin or the Saints must have wanted them to create a more beautiful structure. But even such a point of view as this may reveal a specific Platonic influence. That is the idea that since God is good and, therefore, not jealous of human achievement, man should not constrain his aspirations but strive for ever greater achievement. A good example of this aspirational impulse occurred at Laon, in 1155, when Bishop Gautier demolished a Romanesque church just fifty years old in order to create what is considered one of the first buildings completely conceived in the new idiom.

Symbol and Function

> Theological tradition has a dual aspect, the ineffable and mysterious on one hand, the open and more evident on the other. The one resorts to symbolism and involves initiation. The other is philosophic and employs the method of demonstration.[12]

Symbolism and functionalism were cast as antithetical to each other for most of last century after symbolism lost all of its credibility. However, there is now a growing interest in the symbolical potential of architecture. In the Middle Ages there seemed to be no disjunction between symbol and function. The most obvious example is the cruciform plan of Gothic churches. Liturgy - the function - demands the symbolism of the cross.

The Medieval minds regarded symbols as the only genuine guide to understanding. Even in a guidebook, *Marvels of Rome*, Benedict the Canon describes a pagan sculpture thus:

> The woman encompassed with serpents, that sitteth with a shell before her signifieth the church, encompassed by many rolls of scripture, to whom he that desirest to go, may not, but that he be washed in that shell, that is to say except he be baptised.[13]

Notice how the mere *appearance* of the sculpture is entirely subservient to the need to convey *religious truths*.

Today, since asceticism requires the minimum of physical accoutrements, it might seem reasonable to assume there to have been an irrevocable tension between a preoccupation with spiritual matters and the practice of architecture. Yet there is no evidence of sizeable anti-architectural movements. Visionary works such as Augustine's *City of God* provided poetic inspiration for ecclesiastical architecture and we can observe changes during the Middle Ages that seem to reflect a need to create an architecture that could do justice to its cosmology.

In Romanesque Architecture the walls delineate boundaries between the sacred interior and the profane exterior and enclosure was sufficient to represent apartness. The symbolism of the struggle of Good and Evil (the equivalent of a dialectical thesis and antithesis in which the inherent Platonism of Christianity manifested itself) was further articulated in the form of paintings, or reliefs, applied to the mass of the load bearing walls. The idea of an all pervasive goodness and beauty in creation was not addressed in typical Romanesque architecture for the emphatic rhythm of ponderous arches, suggestive of an earthbound procession, could not transcend association with defensive and military architecture representing temporal power - at Durham the Church appears even more martial and defensive than the castle. The ribs of vaults which featured in the transitional Romanesque buildings were observed to explicate structural integrity and were, therefore, adopted as a formal feature, or even as applied decoration, in many twelfth Century Romanesque churches. In contrast Gothic can be said to express the structural dynamic in its explication of the structural cage. The dissipation of the insensible mass of masonry represents transcendence from brute matter to ordered unity. The expansion of the small defensive windows of Norman architecture into translucent walls are a denial of any external threat - a symbol of supreme faith. Thus, the Romanesque-Gothic transition encompassed an altered concept of the church building; from a haven from sin, into a gateway to Paradise. The optimism of Plotinus is translated into a physical form.

Bernard and Suger: Patrons of architecture

St. Bernard was one of the greatest writers of the age and his works were known to all cultured readers. A monastic reformer, he preached mystical union by love and unity of will. The achievement of the Gothic owes a considerable debt to the austerity of St. Bernard's prescriptions. The Cistercians[14] initially eschewed all types of decoration as distractions not conducive to contemplation of the 'Law Divine.' In some respects the reformists were carrying on a tradition, not exclusively Judeo-Christian, going back to Pagan times of a criticism of the use of images. St. Bernard's well documented letter to William of St.Thierry conveys his distaste for ostentation. Anathema to him were such 'monsters' as the struggling demons and saints and the contorted sculptural creatures of many early Romanesque churches. One is reminded of Augustine's Platonic distrust for the murals which were appearing in the early churches of his native North Africa. In Plato's *Republic* mimetic art, twice removed from reality, appeals to the lower less rational part of our nature.

St. Bernard's influence simplified church interiors and brought to attention the simple beauty of pure architectural forms. The Cistercians were not anti-art and

in fact Bernard himself composed Latin Hymns. However, the essence of beauty for him resided solely in correct proportion as explicated by St.Augustine.

The Cistercians had their own distinct school of architecture and were innovators in the use of the pointed arch. Let us not forget the practical role played by the monks in the improvement of such crafts as masonry and painting; significant in the growth of a new professionalism in the later twelfth century. Masons, bricklayers (cementari), stonecutters and carpenters were all involved in construction and a monk might be skilled in some, or all, of these. During Bernard's abbacy his order spread Gothic architecture to Britain and Italy.

Of particular importance from the tenth century onwards were the works of the, so-called, Pseudo Dionysius (sixth century AD.).[15] His writings were elevated in importance by an attribution which conflated the author with both a first century follower of St.Paul and also with the martyred third century patron saint of France - St.Denis. Pseudo Dionysius, who actually seems to have been Syrian, was inspired both by the Biblical texts and by Plato. He describes God as above all 'being,' yet all existence participating in him. His *The Divine Names* is unlike Plotinus in that it describes God's attributes based on the Scriptures. From the premise of a Holy Trinity, expressed in *The Mystical Theology*, Dionysius developed a theory of a tripartite cosmos which is comparable to Plato's three levels of reality: archetypal, ectypal and typal. In parallel with this, Dionysius charts the ascent of the soul towards God by purification, illumination and deification. *The Heavenly Hierarchy* deals with angels, their powers and spheres of influence while the *Ecclesiastical Hierarchy* deals with liturgy and the hierarchical structure of the church. Pseudo Dionysius provided a symbolic vocabulary for ecclesiastical art as exemplified by the poetry and the artistic programme of Abbot Suger at St.Denis. Suger's obsession with this brand of Neoplatonic mysticism, also known as the 'Metaphysics of Light' is evident from Panofsky's translation of his project journal.

Suger clearly sought a more didactic architecture than the Cistercian mystics had need for, although both shared the concept of the purifying light of God. While the Cistercians adhered to austere white-washed interiors, white glazing and white uniforms Suger wanted to impress pilgrims with examples of glass, jewels, metals and costly needlework rivalling the glory of the Hagia Sophia. His interest in gems is rather more than a worldly show of wealth, for he seems convinced of the intrinsic value of crystals as pure forms and was fascinated by the ability of the prism to split white light into its constituent parts. This revelation of colour is represented by the jewelled glow of stained glass. In Platonic theory the divine light of creation permeates the cosmos and the illumination of an interior becomes a means of evoking that power. The *Light* which is manifest in all matter is revealed by the skill of the craftsman. Thus, the diffusion of mysterious light through stained glass, which has a dramatic role in creating a suitable atmosphere for ceremony, is both symbolic and functional.

The Abbey Church of St.Denis is regarded as a seminal work of Gothic art despite its composite nature (Suger retained the old nave and did not live to see the fulfilment of all the work he put into operation. Also further work was commenced in the following century). Suger's importance as a diplomat and historian rivals his architectural importance. Nevertheless the new west facade was itself a prototype for the emerging style. The triple portals and the tripartite arrangement of the façade, with its innovative rose window, was extremely influential. The placement of column statues, of biblical kings and queens and prophets, at the door jambs surmounted by the figure of Christ enthroned in judgement in the tympanum created something of a precedent, repeated at Chartres and elsewhere, as did the idea of depicting the patron saint on the right tympanum. These sculptures' style mark a departure from the more ubiquitous Romanesque reliefs in the church, in that they convey a profound solemnity, perhaps revealing a psychological interest in the individuality of the subject.

It may well be that Suger's Neoplatonic tendencies would not have developed had he not believed the writings of Dionysius to be by St. Denis himself. Nevertheless, Pseudo Dionysius appears to have been a genuine inspiration to Suger who was particularly interested in the transcendence from material to immaterial which Dionysius terms the 'anagogical approach.'

> The admirable power of one unique and supreme reason equalises by proper composition the disparity between things human and Divine and what seems mutually to conflict in inferiority of origin and contraiety of nature is conjoined by the single, delightful concordance of one superior, well tempered harmony.[16]

The iconography Suger developed articulated the vocabulary of the new style. The nine chapels are redolent of the nine orders of Angels in the *Celestial Hierarchy* and, indeed, hierarchies are integral to the design schemes of Gothic buildings. The rose window is a cosmological calendar dividing time into an eternal twelve-fold geometry and is both didactic and esoteric.[17] Suger writes that the twelve columns of the chevet and the twelve of the ambulatory represent the twelve apostles and the twelve minor prophets respectively.

Paul Frankl asserts that Gothic architecture owes nothing to the philosophy of ecclesiastics but this denies the indisputable influence of such prime movers as St. Bernard and Abbot Suger who were both patrons of the arts themselves and sources of reference for other patrons.[18] One can hardly imagine the undertaking of such large programmes of building without consultation with all the authorities - men of letters, theologians and craftsmen - to determine what would be pleasing to God and also achievable given the technology available.

Figure 3. Chartres Cathedral, a detail of the north porch. The twelfth century sculpture provides a fine example of an increasing interest in expressing the individuality of the subject. Possibly an interest in particulars, as opposed to universals, is the cause of this advancing humanism

For all the sophistication of the architects of the Middle Ages, the patron's philosophy would be the main consideration. We cannot know whether this caused the architects frustration or provided inspiration.

Of course the architect is the product of society not the reverse. As Panofsky relates, the systematisation of the scholastics became a sort of medieval obsession. This resulted first in clarification of written texts and their illumination and then in architecture and its subsidiaries: sculpture, painting and metal work. Pictorial art became more contained and compositionally more strictly arranged within the frame, border or panel. This stress on orderliness and exact division of space must have influenced architecture. The new clarity of articulation can be seen at Laon where the vaulting shafts continue down across the nave walls, in clusters of three and five, expressing the unequal load on alternate piers exerted by the sexpartite vaults.

The conservative tradition of the craft guild (or architectural profession) accounts for an improvement in techniques but *boldness* is required for innovation. That is to say, the formulation of the problem must precede the solution. This problem, how to achieve conformity throughout a whole church, is consistent with the scholastic obsession with systematisation for its own sake.

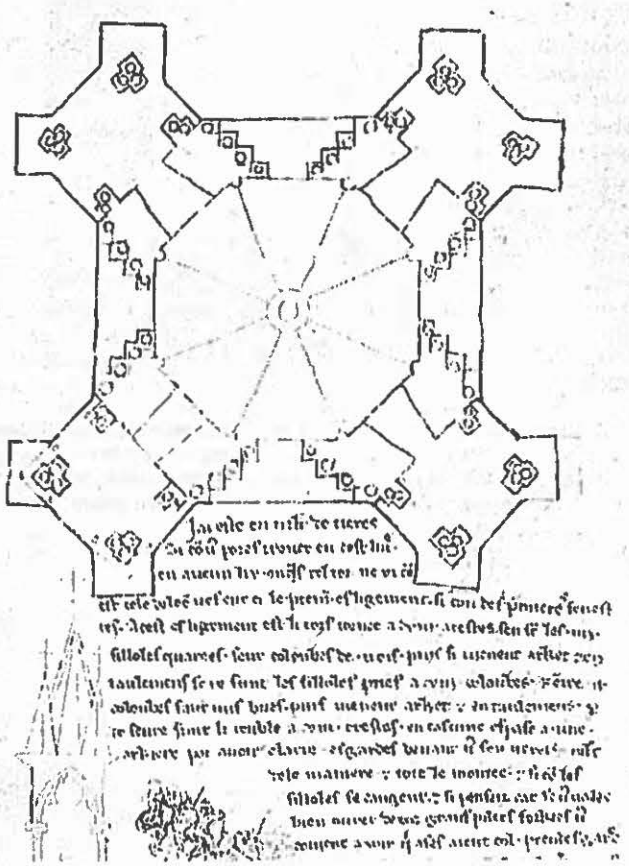

Figure 4. A page from Villard's lodgebook showing the ground plan of the tower at Laon Cathedral. Geometry is generator and controller of the structural arrangement:thus it is a plan made after an ideal model.

Conclusion

There seems to be an unavoidable correlation between the formulation of the problem of a unified architecture and the Summa of Scholasticism: totality, arrangement into parts (and parts of parts) and the demand for distinct and cogent inter-relationships. The impetus of the logical challenge no doubt contributing to the formulation of the solution. It would be convenient if Romanesque could be proven Platonic and Gothic proven Aristotelian, using a premise such as practical enquiry favours practical results, in order to explain the experimentation and technical achievement of the Gothic period. But, as we have seen, Neoplatonic metaphysics seems to have increased in importance as Romanesque architecture gave way to Gothic.

The importance of the Neoplatonism is that it embraced, and acknowledged, both systematic philosophy and the mystical tradition, as asserted by Pseudo-Dionysius. It proved a particularly appropriate seam of philosophy for architecture since the central work - *Timaeus* - describes God finding his materials in disarray and introducing proportion and symmetry. Plato's Demiurge is the archetypal architect providing the key to meaning in the visible universe.[19] This combination of the intellectual and speculative, with the spiritual and ascetic, is as much as any architectural theorist has ever attempted. The influence of any theorist must, therefore, be measured against the great works of the Middle Ages when a triumph of both faith and reason was achieved.

Finally, is there anything that today's architect can learn from his Medieval predecessor? I believe that both are confronted with similar problems. In the Middle Ages the imperative for the architect was to bestow meaning to the fruits of artifice and to reconcile conflicting aspects of the Christian tradition. The contemporary architect is confronted with a myriad of diverse cultural influences and belief systems. His imperative is, similarly, to avoid arbitrariness and inconsistency and to produce a legible architecture.

The scholastics were both challenged and challenging. Theology was subject to a mounting, yet inspiring, threat. Faith had to be made invulnerable to reason yet, at the same time, reason used to explain faith. To equal the builders of the great Medieval cathedrals contemporary architects must achieve a triumph of both faith and reason. That is to say, the rationale must be explicit and the architect's faith in any particular project must be evident in that work while consistent with all his others and, at the same time, be inseparable from the faith by which he lives.

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Notes and References

[1] Peter Abelrd (1079-1142) studied under Roscelin and later, in Paris under, William of Champeaux, a realist, with whom he fell out over his nominalism. He produced commentaries on Porphyry and Boethius as well as his own *Dialectica*, *Sic et Non* and a treatise on the Trinity.

[2] Abbot Suger, *On the Abbey Church of St.Denis*.

[3] Interestingly, the ideas expressed in the *Ennnids* were adopted by the Sufis for whom Plotinus was known as the *Shaykh* (spiritual master).

[4] Compare this theory with the "Harmony of the World Soul" in *Timaeus*.

[5] The use of ratios and harmonic proportions in architecture is too voluminous a subject to embark upon here, but I trust that the reader will accept the uncontroversial view that St.Augustine was of tremendous importance for Christian architecture and music.

[6] The Pythagorean Quadrivium is a fourfold exercise: Arithmetic, Geometry, Astronomy and Acoustics. And the trivium: grammar, rhetoric and logic. According to Thierry of Chartres the quadrivium embodies the contents of knowledge; the trivium its expression, with reason and eloquence. The Roman Republican Varro (116-27 BC) recommended the teaching of nine liberal arts including medicine and architecture but the Roman Empire emphasised the trivium alone. Martinus Capella (410-439 AD), author of the major textbook of his age, reduced the number to seven and invented the allegory of the marriage of Philosophy with Mercury accompanied by seven handmaidens, or nurses. (Baldwin)

[7] John the Scot (circa 800 - 877) was head of the court school of Charles the Bald in 843. He was a supporter of free will over predestination and believed that reason and revelation are both sources of truth and, therefore, cannot contradict each other. His *On the Division of Nature* (which was banned by the Pope) was influenced by Plato in regarding particulars as supervenient upon universals.

[8]Cornford, p.21

[9] Alcuin of Tours (circa 730 - 804), originally from York, was tutor to the family of Charlemagne. He was interested in de-allegorizing to achieve more practical schemes of grammar, rhetoric, and dialectics. Cicero's *De Orutore* and Quintilian's *Orutoria* were important sources for rhetoric, while Porphyry's *Isagoge* and Aristotle's *Interpretione*, with a commentary by Boethius, were important for the study of dialectics.

[10] The so-called 'cradle of monasticism' founded by St.Benedict in the fifth Century and which boasted a large library and connections with Constantinople.

[11] Von Simson O.G. *The Gothic Cathedral - Design and Meaning.*

[12] Pseudo-Dionysius, Letter 9 to Titus the Hierarch, p.238

[13]Davis-Weyer, p.157

[14] An order founded in 1098 by Abbot Robert of Molesme. Their establishment at Citeaux demonstrates an ascetic reaction to Clunaic decadence.

[15] See Pseudo-Dionysius, *The Complete Works.*

[16] Abbot Suger, *On the Abbey Church of St.Denis,* p.168

[17] Cowan says rose windows use geometry in three way: manifest, hidden and symbolic. I.e. the visible frame of the circle, evoking eternity and perfection, embodies a web of complexity concealing five, or six, pointed stars. The six pointed star of David with its interlocking triangles - symbols of fire and water - he suggests can also represent the union of the conscious and the unconscious. However, the 'unconscious' is a modern psychological concept unknown in the middle ages.

[18]Frankl P., *Gothic Architecture*

[19]Interestingly, the "Harmony of the World Soul" is a theory unconnected with music. Plato has the Demiurge construct the "World Soul," not by means of the traditional tetractys of the Pythagoreans, but by notes numbered 1, 2, 3, 4, 9, 27 from an indefinite diatonic scale. These notes have been chosen because they correspond to the terms of two geometric proportions ending with cube numbers. In Plato's cosmology the "World [or universal] Soul" is a framework onto which the "World Body" is attached.