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**Medieval Thought
and its Architectural
Expression**

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Introduction

This dissertation will study the correlation and influences between a series of underlying beliefs and how these find expression in the architecture and setting of place. I believe that the physical structures of a place carry a layer of meanings and associations, and that it is these meanings and associations that give a sense of place.

The western European medieval town will be used as a basis of study and discussion. The time period is generally from 1100 to 1350 AD, although the underlying beliefs were influenced from a considerably earlier time, most notably by St Augustine in the 4th century AD. Lewis Mumford observed that

By renouncing all that the pagan world had coveted and striven for, the Christian took the first steps toward building up a new fabric out of the wreckage [of the collapsed Roman Empire]. Christian Rome found a new capital, the heavenly City; and a new civic bond, the communion of the saints. Here was the invisible prototype of the new city.¹

Given the complexity of a society and the scale of this dissertation, it would be impossible to adequately analyse the entire societal worldview and its architectural manifestations. Instead, only some of the underlying beliefs and their manifestations will be discussed, with primary emphasis given to the cathedral, and secondary emphasis given to the market. The cathedral encapsulates and manifests many of the key aspects of the medieval belief system including man's role on earth, civic bonds to others in society, the afterlife, the conduct of one's life, to a lesser degree healing and education, and much more. As will be discussed in greater detail later the cathedral was, in the minds of the people of that day, the physical and spiritual link with the City of God, and the attainment of this City was the source of supreme good.

The market is important because the physical growth and development of the medieval town was largely fueled by trade. The entire medieval town became a market in one form or another.² The market function was a strong influence in the physical design of the environment. It was the emergence of markets that allowed the commercial development of the medieval town.

The study is further narrowed because with the transition of time, many of the features of medieval towns have disappeared. What we see most strongly today are a series of cathedrals (e.g., Chartres, Notre Dame, Amiens, etc) and surviving street patterns from medieval times (e.g., Ulm, Moscow, Amsterdam, etc.) Many of the buildings of the middle ages were subsequently destroyed, particularly during the Renaissance.



Map of the world, ca. 1110 A.D. (int31)



Illustration from the Tres Riches Heures (int13)



Ecclesiastical Map of the British Isles in the Middle Ages (int11).

Background of the Medieval Town

The fall of the Roman Empire represented a step backward for many of the towns and villages of Western Europe. The Roman Empire had provided a stability and order together with a network of trade. This was subsequently lost with the fall of the Roman Empire.

Many towns from the end of the Roman Empire had walls around their perimeter, whose purpose was protection against barbarian invasions¹. Typically, these perimeter walls might measure approximately 500 metres each on four sides. In modern terms this would be considered very small indeed, and in walking terms one could walk from one end of the walled town to the other in five to ten minutes. Not everyone lived within these walls, but would often live close enough so that in times of conflict, they could enter the town for protection. This pattern continued up through the second half of the ninth century, and the concept of town was primarily that of protection.² The walls of the town were a central defining feature. A town could not exist at that time without the protection these walls afforded.

The medieval town represented freedom from the jurisdiction of a secular or ecclesiastical overlord. This freedom was granted by charter, typically from the king. A charter from John, King of England to Dunwich in 1200 is representative

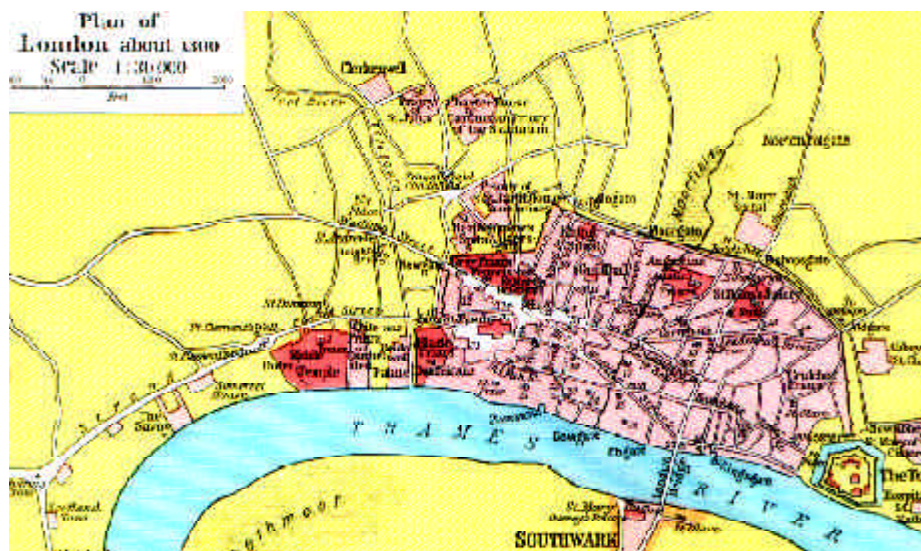
John, by the grace of God, etc. Know that we have conceded, and confirmed by this charter, to our citizens of Dunwich, that the borough of Dunwich be our free borough, and have soc and sac and toll and team and infangentheof, and that they be quit of thelony and lestage and passage and pontage and stallage and of leve and of Danegeld and of ewage, of wreck and lagan, and of all other customs throughout all our land . . . and that they pay the lawful and



Lubeck. One of the city's gateways, from a woodcut of 1560 (ror09).



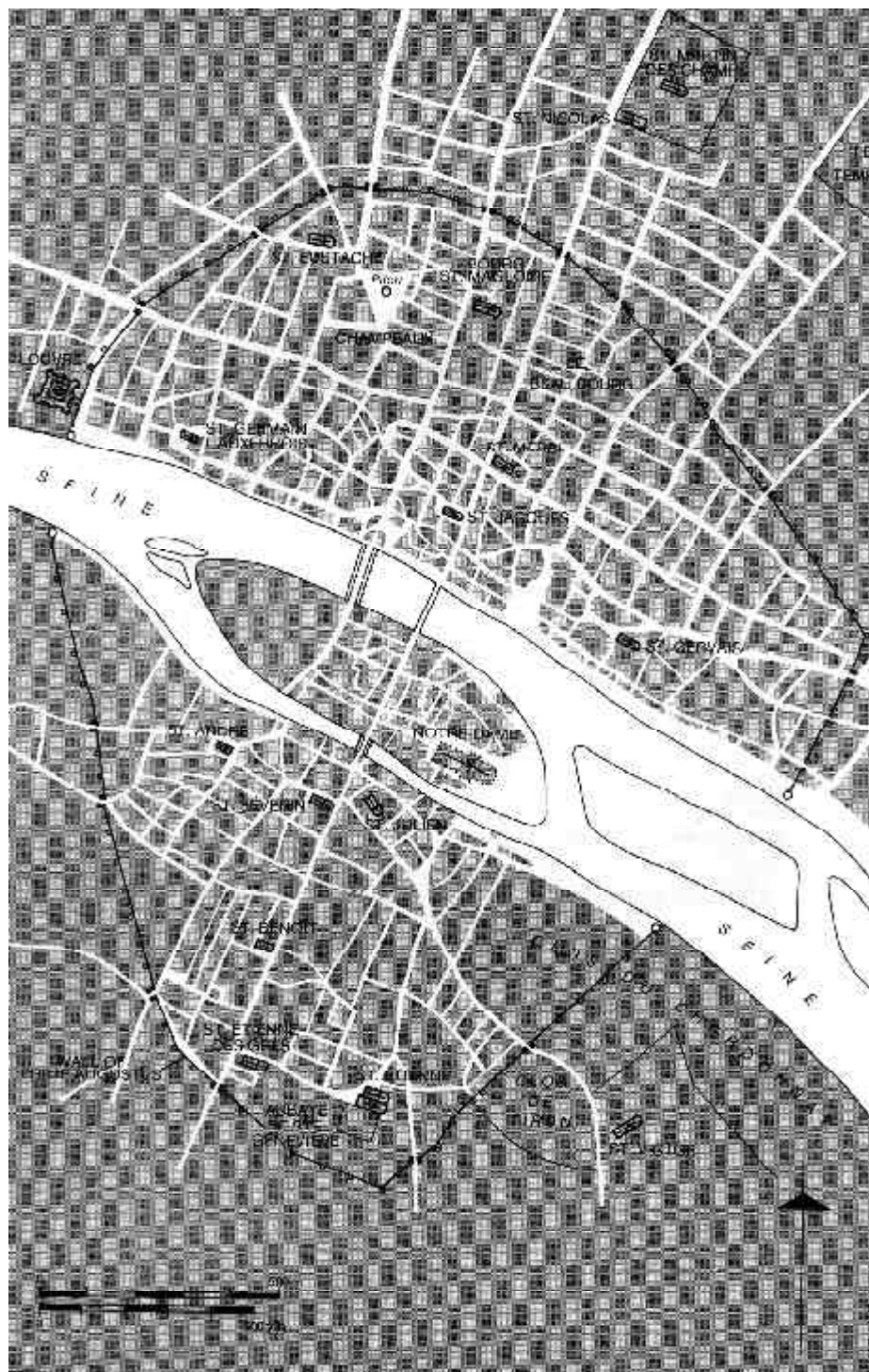
Nuremberg, late 15c (ror02)



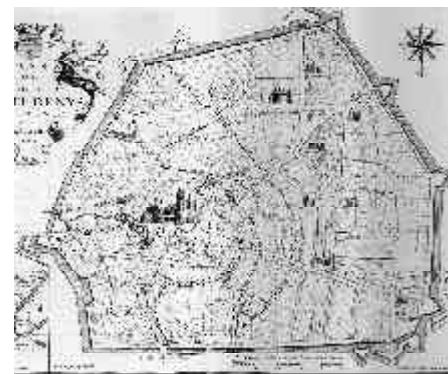
Plan of medieval London ca 1300 (int10)



Woodcut from 1480 (int24)



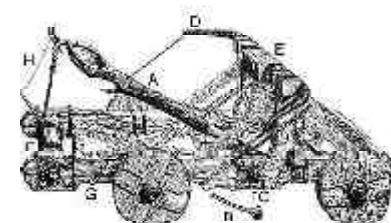
Map of medieval Paris, c. 1300 (sen02)



Map of the Town of St. Denis in 1706
(int02)



Carcassonne (int78)



Medieval war machine (int79).



Colchester and suburbs at the close of the Middle Ages (int84)

customary ferm at our exchequer by their own hand; and that they make no plea before the shire court or the hundred court except in the presence of our justices; . . . they may give or sell or do as they wish with their possessions in lands and buildings, and whenever they wish.³



Map of Mainz, 1646 (saa04)



Cologne, late 15c (ror 03)



Lubeck. The castle gate (ror07)



Medieval town at Avila, Spain. The ancient walls still enclose the town (her03).

Overview of Medieval Commerce

Outside of the Church, the guilds were one of the most important institutions in society. These were monopolistic trades set up under charter from either the king or city corporation. In exchange for being granted a license to regulate their trade, the guilds in turn paid a fee to the entity that gave them the charter. The granting of a charter in Richirzegcheide in 1180 to establish a carpenter's guild is typical of many:

. . . Be it known . . . [that] the officials of Richirzegcheide, agreed for the honor of St. John the Evangelist, for the sake of usefulness, to concede a fraternity to the carpenters who were petitioning them. And this was approved in the City Hall in the presence of the officials of Richirzegcheide. They shall have this fraternity by this law; that every carpenter . . . wishing to join the said fraternity will give twelve solidi for the fraternity . . . But others who are not of the craft of these brethren, and who wish to have the said fraternity, will give twenty-four denarii for the same fraternity. Also they ought to enjoy this law, that, whatever man or woman of the fraternity should depart this life, there will be given for his obsequies at death four pounds of wax; and, for his vigil, six men, who will watch diligently, are appointed; and, to his burial the men and women who are of the fraternity shall all be compelled to come. He who neglects to watch when he is ordered will give two denarii for satisfaction. Whoever is



20c artist's impression of a 14c English town (int80).



Ricart's Kalendar of 1479, with the four main streets converging in the marketplace (int83).



Air view of Tubingen market, with Rathaus at lower right (saa07)



York - Marketplace (int81)

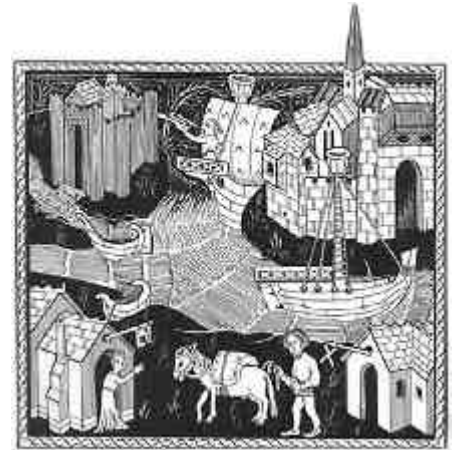
unwilling to be present at the funeral of a brother or sister, as has been said, will pay just as much.¹

There are several aspects of the guild that are interesting. First, there is the establishment of a protected monopoly, where the members of the guild can determine price, standards, quantity, etc. Perhaps more interesting is the social underpinning established in the guild. Note in the establishment of the carpenter's guild the concern given to care of the dead. The guild is not strictly a commercial organisation but has a social duty to its members. Lewis Mumford and others have noted the Christian influence in providing a moral reference point, and one sees this influence in the establishment of the guild.

Markets were also established by charter, and usually gave monopolistic rights to those who had the market. Edgar, King of the English, granted the following market rights in 963:

I, Edgar grant and give today, before God and before Archbishop Dunstan, freedom to St. Peter's minster at Medhamsted, from king and from bishop; and all the thorps that thereto lie; that is, Eastfield and Dodthorpe, and Eye, and Paston. And so I free it, that no bishop have any jurisdiction there, but the abbot of the minster alone. And I give the town called Oundle, with all that thereto lieth, called Eyot-hundred, with market and toll; so freely, that neither king, nor bishop, nor earl, nor sheriff, have there any jurisdiction; nor any man but the abbot alone, and whom he may set thereto . . . And I will that there be a market in the town itself, and that no other be betwixt Stamford and Huntingdon. And I will that thus be given the toll . . .²

The medieval town succeeded economically because it provided markets. These markets could survive because they had the physical protection of the walled towns. The existence of the markets and the physical surroundings are therefore mutually dependent.



Drawing based on a English manuscript illustration of ca.1400 (int82)



Guildhall at Bruges, late 13c (ror01)



Marienkirche at Straslund, 1298. Burgesses built their own independent churches (her06).

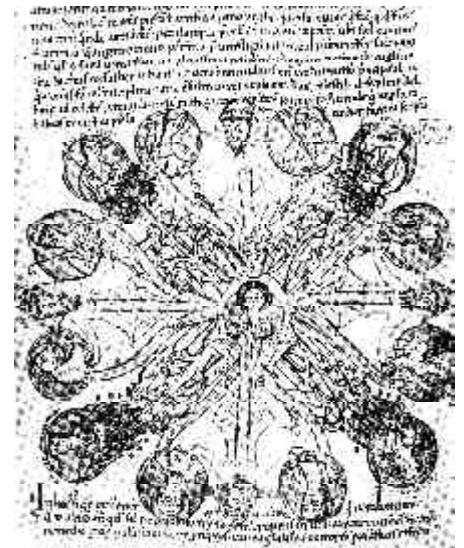
Aspects of Medieval Thought

While it is dangerous to generalise on ways of thought, there are some trends in medieval thought that are fundamentally different than ways of thinking today. Of fundamental difference was a total worldview centered upon eternal life after death. One of the most influential thinkers in this regard was St Augustine, in particular his book 'The City of God', completed in 426 A.D. It is worth discussing this book in some detail as it gives a good overview on many aspects of the medieval worldview.

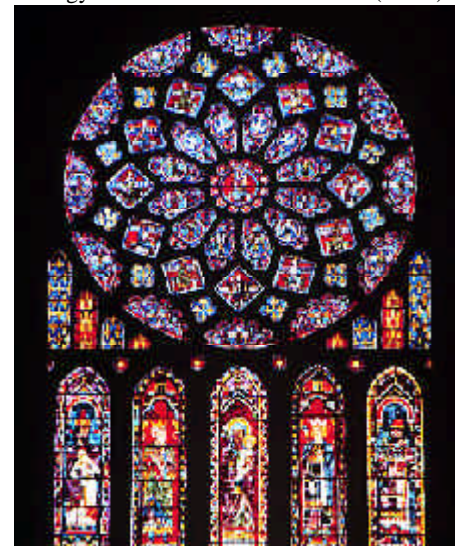
According to St Augustine:

He [God] is the source of happiness and the very end of all our aspirations . . . We offer him our allegiance – for 'allegiance' and 'religion' are at root, the same. We pursue Him with our love so that when we reach him we may rest in perfect happiness in Him who is our goal. For our goal . . . is nothing else than union with Him whose spiritual embrace . . . can alone fecundate the intellectual soul and fill it with true virtue.¹

The time of man on earth is not an end in itself. Rather it is a transition towards that heavenly city where "victory is truth, dignity is holiness, peace is happiness, [and] life is eternity."² Man is a part of a large and comprehensive system. Compared to modern times, there is a definite 'grounding' offered to man in that he is offered security in a cosmological sense. While one may not agree with one's grounding, it was definitely a frame of reference on the world.



The mystical Paradise of church doctrine in analogy to that of the Old Testament (saa04)



Chartres Cathedral, stained glass (int18)



Christ in the Heavenly City. From the Bible historiee of Jean de Papeleu, 1317 (saa03)



Man: body and soul. Bartholomaeus Anglicus, 15c (int39)

The Augustinian world view is founded on belief and not rationality. Augustine warns that a rational man will be unable to attain happiness apart from the light of God.³ What is important in this system is the totality, and the individual pieces that make up the belief system. Christine Boyer has observed that medieval maps were not scaled maps in the sense we think of them today. Rather, they represented a spatial and symbolic totality.⁴ The world map (see illustration) derived from St Isidore shows an integration of physical geography with spiritual placement. Note that in addition to representations of the continents, there are included references to Paradise and Jerusalem.



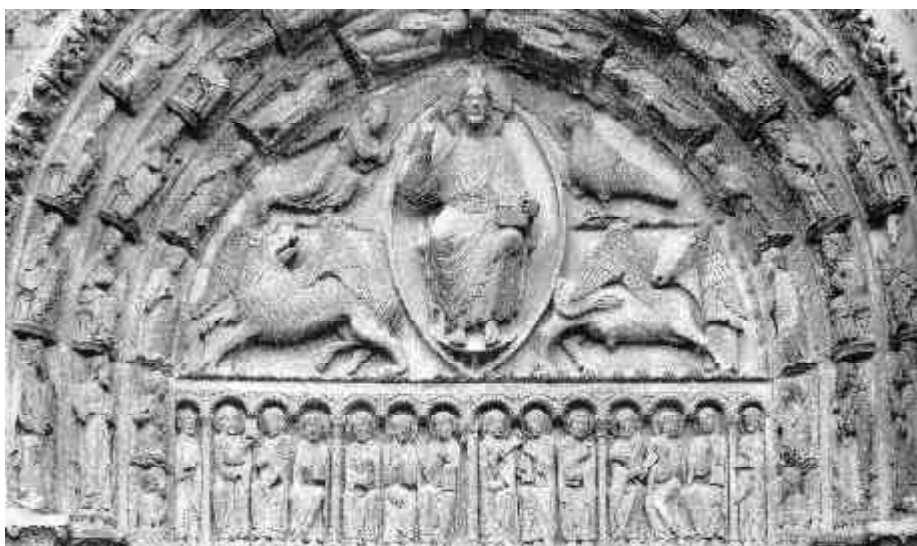
Medieval map after St Isidore (int85). Note identification of Paradise and Jerusalem

The concept of order, and its relationship to God, is crucial in the medieval worldview, and in particular to the physical manifestations of medieval architecture. In the Augustinian world, true beauty is based on a metaphysical reality. Visible and audible harmonies are imitations of the ultimate harmony that the blessed will receive in the world to come.⁵ For St Augustine, the heavenly city is a perfectly ordered and harmonious community, where peace is the order that comes from order.⁶ Therefore, the meanings contained in music or in a geometrically ordered building or town will have specific connotations to medieval man that we do not feel today. The structured order of a cathedral such as Chartres will invoke and reinforce the cosmic order of God. St Augustine quotes scripture when he says, "Thou hast ordered all things in measure, and number, and weight."⁷ There is contained within the geometry a direct connection to the Eternal City that is lost in today's interpretation.

As an example of the importance of number, St Augustine notes the importance of the number 6.⁸ The world was created by God in six days. God of course could have made the world in any time he chose, but chose six



Jan van Eyck (1390?-1441). The Ghent altarpiece (int36)



Chartres Cathedral. Christ enthroned in glory, surrounded by symbols of the four evangelists (hur06)



Ingeborg Psalter. c. 1200 (int20)

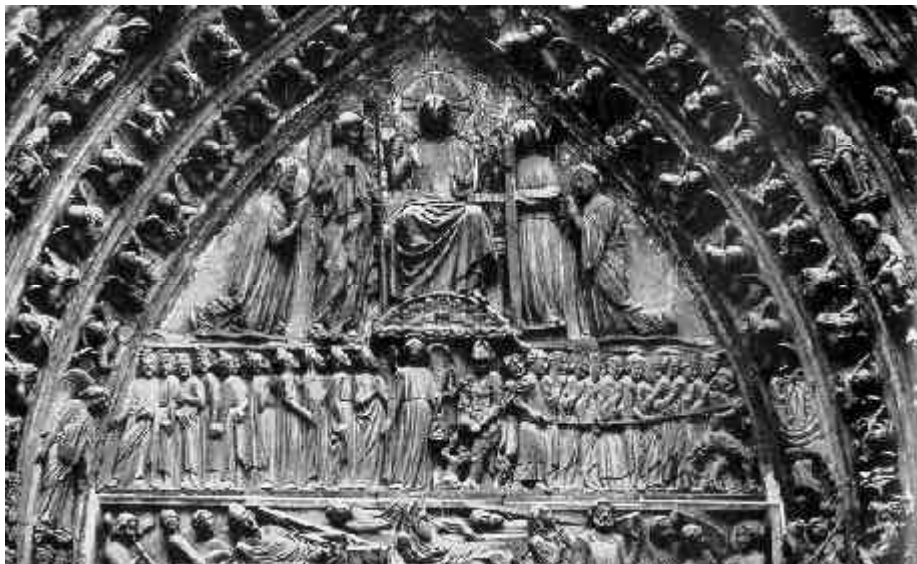
days, as it is a perfect number. The number six is made up of aliquot parts, (1,2, and 3) that are factors with whole number denominators. These three aliquot parts when added total the original number ($1+2+3=6$). For St Augustine, “It is the perfection of God’s work that is signified by the number six.”⁹

The mystical significance of numbers was a topic explored by many philosophers influential in medieval times. One example is St Isidore of Seville (560 – 636 A.D.) who wrote many influential books including one called *Liber numerorum*. This book explored the mystical significance of Scriptural numbers, and included topics such as why seven is a perfection and which numbers stand for which apostle or Biblical event.¹⁰

This idea of order and the meanings derived from them, both geometrical and numerical, is rigourously applied in the design of the cathedrals.



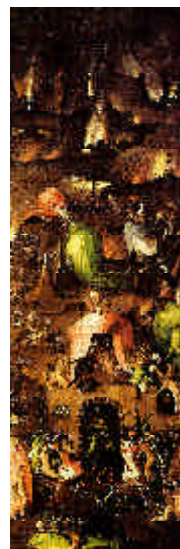
Painting. H. Pleydenwurff, Crucifixion, c. 1475 -1500 (saa05)



Notre Dame. Portrayal of the last judgement (her01)



Medieval manuscript (int15)



Hieronymus Bosch (b. c.1450, d. 1516). The last judgement with heaven on the left and hell on the right (int33)



Bible moralisée. 1226-34 (int21).

Correlations between Medieval Thought and Political Power

In our current society it is difficult for us to appreciate how pervasive religious medieval thought was throughout society, and the extent to which this influenced political and daily life. St Isidore of Seville and others believed that sovereign power was derived from God. He further believed that the Good was sovereign over those who ruled, and therefore the rulers themselves were supposed to be obedient to the Good as it is manifested in law and justice.¹

The political power of kings was claimed through God, generally through some form of ordination. An example of this is seen in an extract from the Golden Bull of the Emperor Charles IV in 1356 A.D.:

Eternal, omnipotent God, in whom the sole hope of the world is,
Of Heaven the Maker Thou, of earth, too, the lofty Creator:
Consider, we pray Thee, Thy people, and gently, from out Thy high dwelling
Look down lest they turn their steps to the place where Erin is ruler;
There where Allecto commands, Megaera dietetic the measures
But rather by virtue of him, this emperor Charles whom Thou lovest
O most beneficent God, may'st Thou graciously please to ordain it
That, through the pleasant glades of forests ever in flower,
And through the realms of the bless'd, their pious leader may bring them
Into the holy shades, where the heavenly waters will quicken
The seeds that were sown in the life, and where the ripe crops are made glorious
Cleansed in supernal founts from all of the thorns they have gathered.
Thus may the harvest be God's, and great may its worth be in future
Heaping a hundred fold the corn in the barns overflowing.²



Charles VI in Avignon, before Pope Clement VII. From Jean Froissart, Chronicles (int37)

The Golden Bull was issued for the purpose of determining the form for the election and coronation of the emperor as well as regulating the duties, rights and privileges of the elector princes. Whether Charles IV believed in God or not is immaterial. In order for him to secure and maintain power, it was necessary to show his linkage with God. The fruits of Charles' people's labour would be God's.

The connection of God with political power went beyond the king or emperor, and was recognised by the population. A consequence of this was that a certain morality was imposed upon the political process that could work to the disadvantage of those in power.



King Edward's vision of Christ during the elevation of the Host (int16)

An example of this can be seen in the City of Toul in 1069. Towns, such as Toul, before obtaining their freedom, were under the jurisdiction of a secular or ecclesiastical overlord who in turn appointed an official to rule the town. There was often conflict between the interests of the overlord and those of the townsmen. The townsmen sought to redefine the power of the overlord and his official. The City of Toul's began their declaration

In the name of the Father and of the Son and of the Holy Ghost, Odo, by the grace of God, Bishop of Toul. It is the work of a servant of God to bring to an end discord and contention between combatants and, by dispensing justice, to ensure peace and concord as long as God, who is the Supreme Good, is believed to be the True Peace.³

As can be seen in the above examples is that the thoughts espoused by St Augustine were not isolated to the religious community, but rather formed a moral reference and a standard against which rulers were judges. This is not to say that this moral reference solved all evils, but rather it gave a different focus and way of looking at the world. Over the course of several centuries it did change significantly change the behaviour of man in Western Europe.



Coronation of Charles III of Navarre. From Jean Froissart, *Chronicles* (int38)



Brussels, Town Hall, built 1401-55 9ror08)

Development of Institutions in the Middle Ages

In our current way of thinking we often consider institutions to be independent entities with a life and purpose of their own. This was very different in the Middle Ages, as the institutions sprung from a common source, and were but different facets of one worldview. Lewis Mumford has described the medieval city in Europe as

a collective structure whose main purpose was the living of a Christian life. That purpose even colored institutions that, like war, were in flagrant contradiction to the Christian spirit, and it curbed other practices, like usury, which could only be resorted to by subterfuge, and with a bad conscience. But above all, the Christian conception of life with its affirmation of suffering and its readiness to give succour, brought into existence agencies for which there is no evidence in earlier urban civilizations.¹

These institutions, as Mumford notes, include hospitals for the care of the sick and ailing; almshouses for the care of the poor and destitute; and the establishment of the monastery as a haven for a “constant stream of disillusioned worldly men and women turned from the marketplace and the battlefield”²

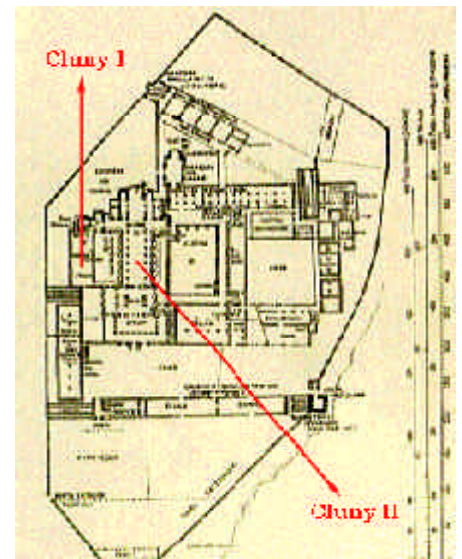
The Abbey at Cluny was established in 910 A.D. with the following charter:

I give these things, moreover, with this understanding, that in Cluny a regular monastery shall be constructed in honour of the holy apostles Peter and Paul, and that there the monks shall congregate and live according to the rule of St. Benedict . . . We will, further, that in our times and in those of our successors, according as the opportunities and possibilities of that place shall allow, there shall daily, with the greatest zeal be performed there works of mercy towards the poor, the needy, strangers and pilgrims.³

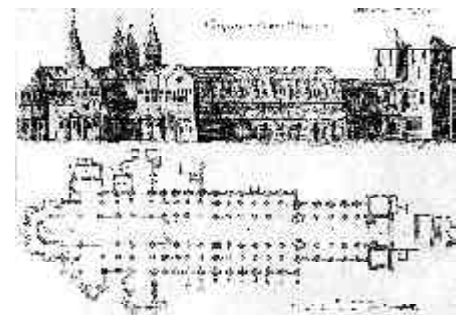
There is a totality in the formation of the institution. It is not enough for mercy to be given to the poor, but the monks must also live according to the rules of St Benedict. There is a total framework implied for both the monks, the poor, the needy, strangers and pilgrims.

Another important institution dating from this time is the university. Mumford notes that

The system of knowledge was more important than the thing known. In the university, the functions of cultural storage, dissemination and interchange, and creative addition - perhaps the three most essential functions of the city - were adequately performed.⁴



Abbey at Cluny, plan from 1050 A.D. (int40)



Abbey at Cluny, original floorplan and side elevation of the third abbey church (int41)



Benedictine Priory of Lancaster 1094 - 1430 (int42)

A brief excerpt from the statutes that established the University of Paris in 1215 read:

R., servant of the cross of Christ, by the divine mercy cardinal priest with the title of St. Stephen in Monte Celio and legate of the apostolic seat, to all the masters and scholars at Paris - eternal safety in the Lord. Let all know, that having been especially commanded by the lord pope to devote our energy effectively to the betterment of the condition of the students at Paris, and wishing by the advice of good men to provide for the tranquility of the students in the future, we have ordered and prescribed the following rules:

. . . If any one of the students in arts or theology dies, half of the masters of arts are to go the funeral, and the other half to the next funeral. They are not to withdraw until the burial is completed, unless they have some good reason. If any master of arts or theology dies, all the masters are to be present at the vigils, each one is to read the psalter or have it read. Each one is to remain in the church, where the vigils are celebrated, until midnight or later, unless prevented by some good reason. On the day when the master is buried, no one is to lecture or dispute.

. . . Each master is to have jurisdiction over his scholars . . . We decide concerning the theologians, that no one shall lecture at Paris before he is thirty-five years old, and not unless he has studied at least eight years and has heard the books faithfully and in the schools. He is to listen in theology for five years, before he reads his own lectures in public.⁵



Scharzhaupterhaus at Riga, c. 1400. (her05)

What is interesting is the totality of the approach towards life reflected in the education. It was obviously important that part of the educational system include preparations in the event a student dies . . . important in the sense of the connection between earth and heaven.



Palazzo dei Consoli at Gubbio, c. 1300.
Public building (her03)

Architectural Expression and the Collective Memory

The city and its built forms are expressions of the collective memory. Maurice Halbwachs has postulated that memory requires a physical framework in order to function. If the physical framework is required to enable memory, then the structure of this physical framework will affect memory, and will have an effect on the interpretation of meanings. In the context of the medieval city, the street patterns and town walls, and prominent buildings such as cathedrals, town halls, and market places are particularly concentrated structures of meaning.

As previously discussed, the medieval town developed within fortified walls whose purpose was to protect the inhabitants from invasion. The successful towns, located on principal trading routes became important centres for trade and industry.¹ Gates controlled entry into these towns. Markets formed just inside of these gates, although the town itself was essentially one big market.² It was the economic power of these towns that made the medieval city what it was.³ Politically, these towns were unique. Unlike serfs in the outlying villages, the people who lived within the towns had a degree of asylum.⁴ As many writers have noted, “the town air makes free.”

As a result, the connotations associated with a fortified town are different that one might have today. The political desirability and centralised markets give a positive cast to the perimeter fortifications, connotating opportunity. The perimeter walls then literally become a container into which the energies of the citizens were channeled and in which memories were harboured.

The street pattern and the notion of public/private space was also unique. Looking at maps of several medieval cities one notes that there is little in the way of public open spaces in the way we currently think of them. If the town was essentially a market, then the interaction was between the tight



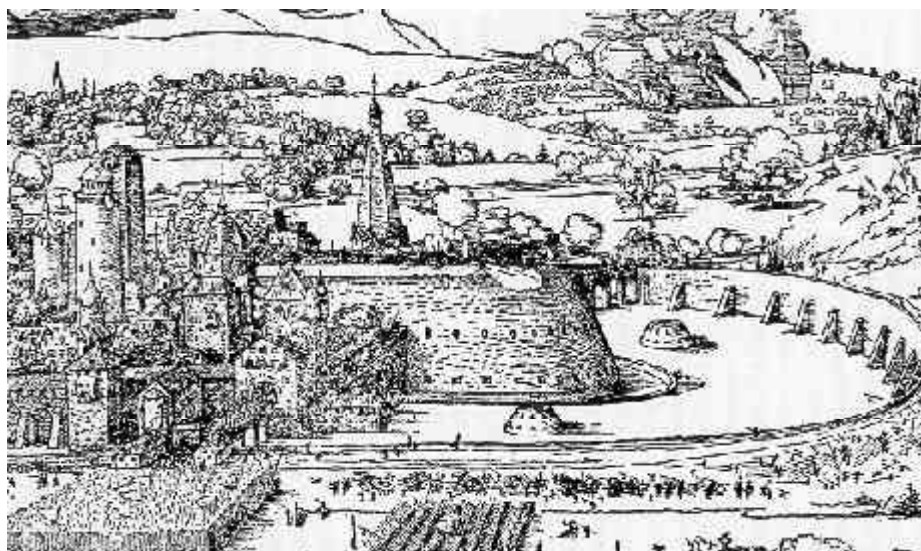
Carcassonne, aerial view (int75)



Carcassonne, church (int76)



Carcassonne, entrance (int77)



Attack on a fortified town. Engraving by Albrecht Dürer, 1527 (ror05)



The town gate, from an illuminated history of Charlemagne, 1460 (ror04)

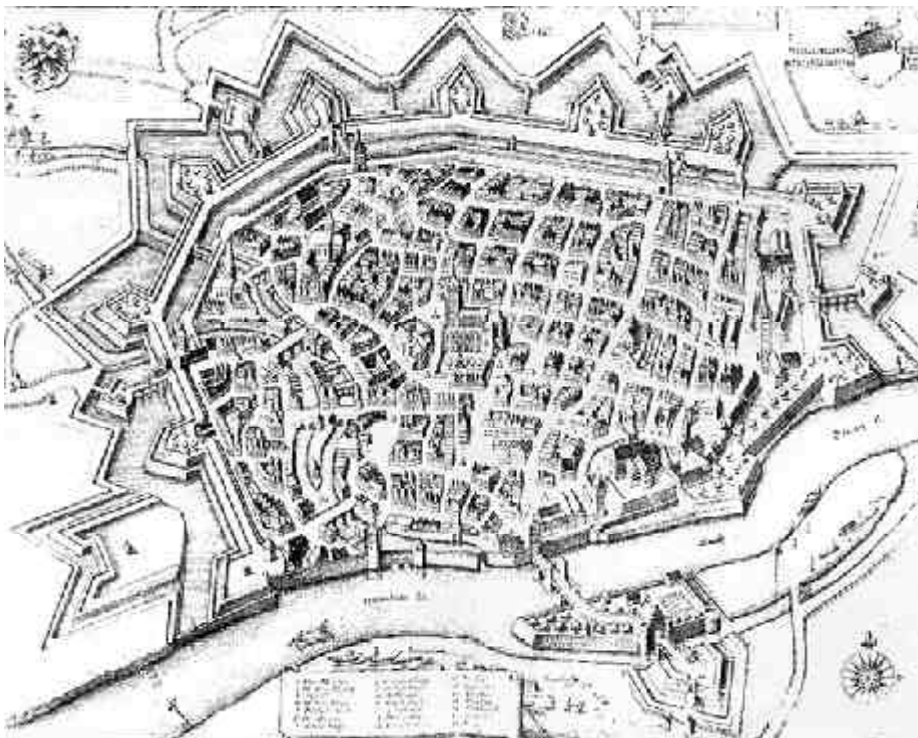
streets, the markets, and the individual businesses that lined these street. For those that lived within the town, the home and place of economic activity were the same.⁵ The lack of central authority would have contributed to the randomness of the medieval street plan. Individual market forces would compete with each other, and the physical boundaries would be a reflection of relative power that these forces commanded. It was only those towns founded in Roman times (e.g., Trier, Milan) that had an ‘master planned’ street layout.⁶

The close and tight medieval street pattern remains in many cities to this day, and, with the cathedrals, is one of the strongest physical legacies of medieval times. The street patterns, and corresponding multiple land ownership, generates a particularly intimate manner of interaction and living daily life.

Richard Sennett has made an interesting observation of the medieval city in that economic and religious development pushed the sense of place in opposite directions.⁷ The economic success gave a freedom of action, whereas religion gave a communal feeling. However, it should be noted that each was not absolute, and was influenced by the other. For example, the religious community provided a moral compass that softened the harshness of commercial life, while the church could at time be oppressive in its taxation (the tithe) of the population. In the physical structure of the medieval town this opposition can be seen in the ordered world of the cathedral versus the changing and chaotic nature of the shapes of the markets.



Map of London (Braun and Hogenberg), 1574 (saa06).



Map of Ulm, 1643 (saa08)



Map of Moscow, 1646 (saa03).

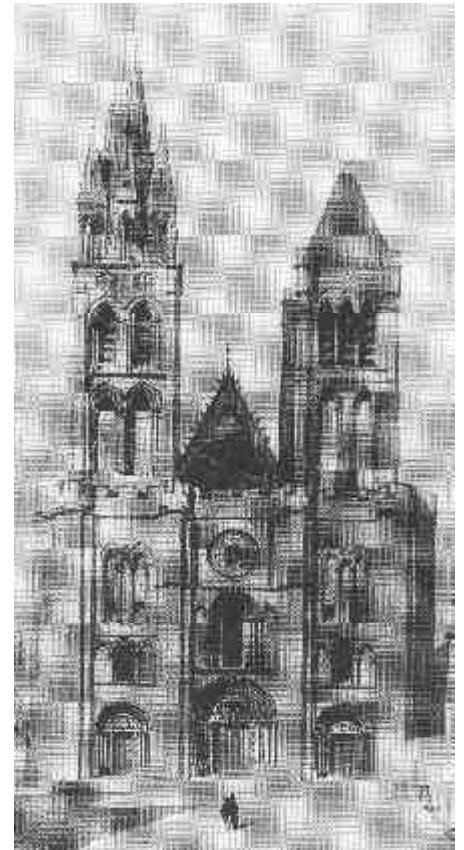
Architectural Expression of Belief - The Cathedral

The cathedral is arguably the building type that is the clearest and most complete physical expression of the underlying worldview of medieval times. The cathedral was literally an image of heaven, and this is reflected in mystically in its symbolism and in the liturgy.¹ According to St Augustine, true beauty is based on a metaphysical reality. The visible and audible harmonies of the cathedral are in fact imitations of the ultimate harmony that the blessed will enjoy in the world to come.² Several quotes help to demonstrate these beliefs.

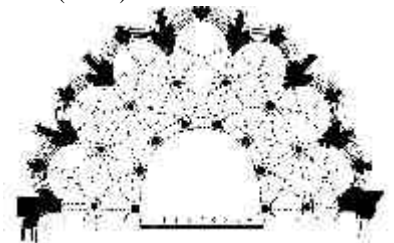
Abbot Suger, responsible for the reconstruction of St Denis wrote regarding the choir he had built;

The City of the great King which joins one wall to the other; in whom all the building – whether spiritual or material – groweth unto an holy temple in the Lord. In whom ye also are taught to be builded together for a habitation of God through the Holy Spirit by ourselves in a spiritual way, the more loftily and aptly we strive to build in a material way.³

A similar attitude is expressed by St Augustine “how will God reward those who build for Him with so much piety, joy, and devotion? He will build them, as living stones, into his spiritual edifice toward which those direct



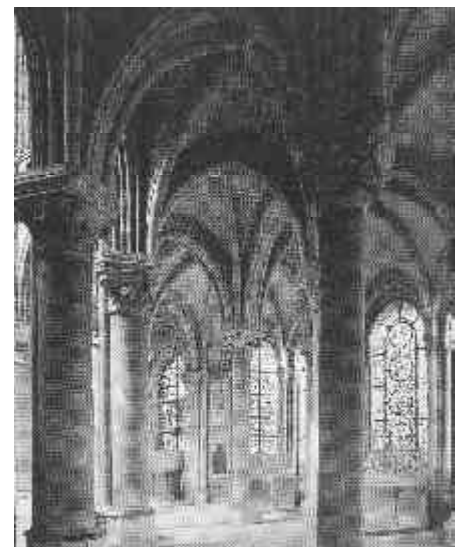
St Denis, west front prior to restoration of 1838-40 (wil01)



St Denis, plan of sanctuary (sim01)



Chartres cathedral from the southwest. The cathedral as a vision of the City of God (hur05).

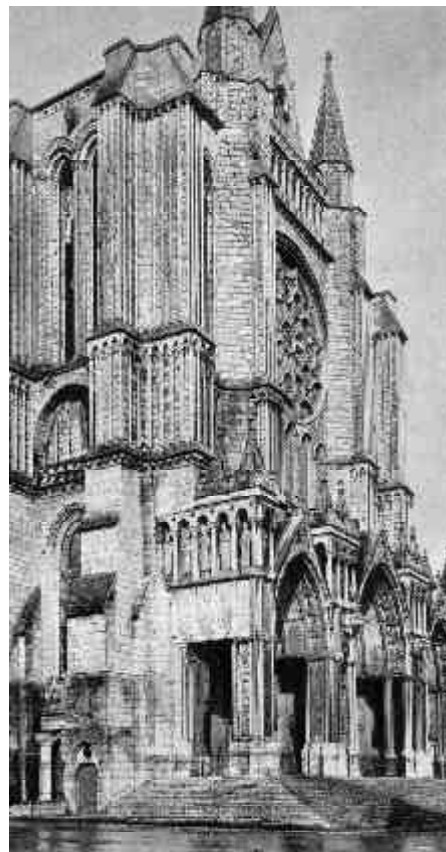


St Denis, ambulatory looking northwest (wil03)

themselves who are informed by faith, solidified by hope, and united by charity.’⁴

The application of geometry underlies the design of medieval cathedrals. The proportions were carefully calculated ratios, and these are pervasive. The importance of the number 6 has been previously discussed. John James in discussing the geometry of Chartres notes that the intersection of the nave and choir (see diagram) is based on the hexagon. The hexagon, with six sides, is a perfect geometrical figure. The intersection forms a rectangle in the ratio of 7:6. The 6 is in the long axis, Christ’s ‘Axis of Understanding’, while the 7 is in the short (transept) axis, Mary’s ‘Axis of Knowledge’. The perfect number six is in Christ’s axis, as Christ is the perfect man, while 7 is in Mary’s axis, as Mary was the patron of the seven Liberal arts.⁵

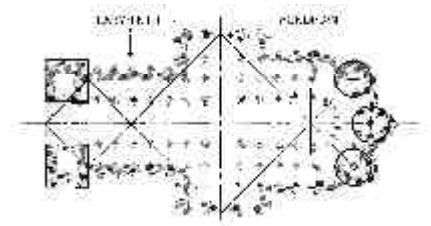
The order imposed by geometry was a direct connection to God. Those attending the cathedral would have had this mental understanding, and therefore the innumerable geometrical themes and sub-themes of the cathedral would reverberate with meaning. The geometry therefore was not a self-referential exercise, but rather a manifestation of a higher order. This geometry is witnessed in plan and section, in the proportioning of elements relative to each other, and in the design of the elements themselves.



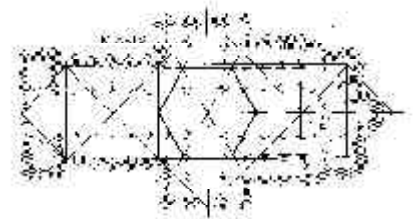
Chartres. South transept from southwest (hur07).



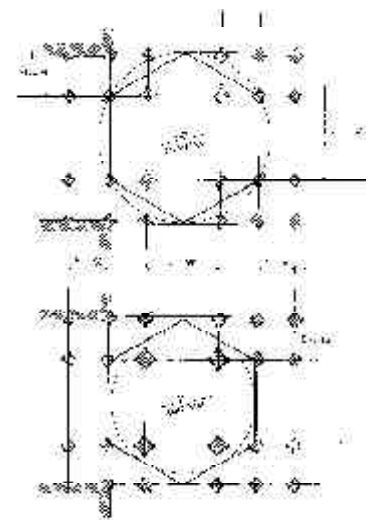
Rouen. Interior (hur09).



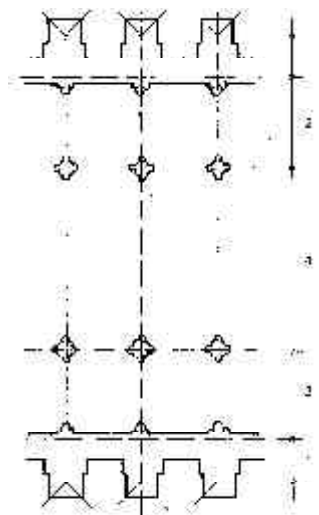
Chartres. Basic geometry. North to top, typical all diagrams. (jam05).



Chartres. Basic geometry (jam08).



Chartres. Geometry of intersection (jam07)

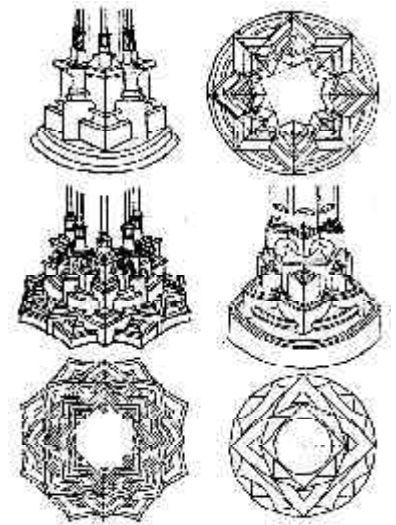


Chartres. Typical nave bays showing 1:2:4:2:1 ratios (jam06)

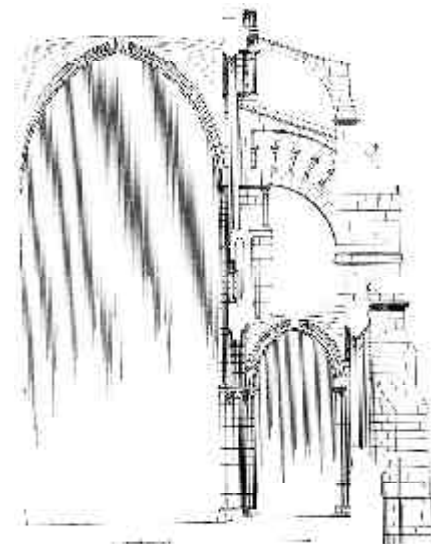
The orientation of the cathedral also held considerable significance. The long axis of the cathedral was set in an east-west direction. The entrance was on the west, and the chapels were on the east.

Abbot Suger had the following inscription placed on the main (west) door to St Denis:

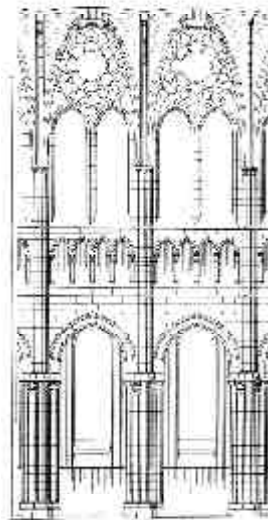
Whoever thou art, if thou seekest to extol the glory of these doors,
Marvel not at the gold and the expense but at the craftsmanship of the work.
Bright is the noble work; but, being nobly bright, the work
Should brighten the minds, so that they may travel, through the true lights,
To the True Light where Christ is the true door.



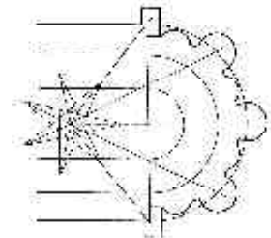
Gothic canopy supports showing the use of geometry (sim02)



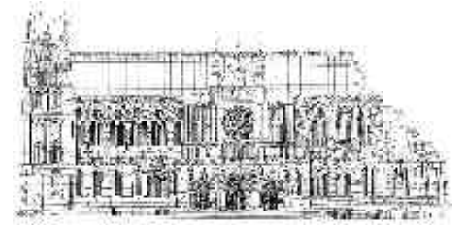
Chartres, cross section (int72).



Chartres, interior elevation (int45)



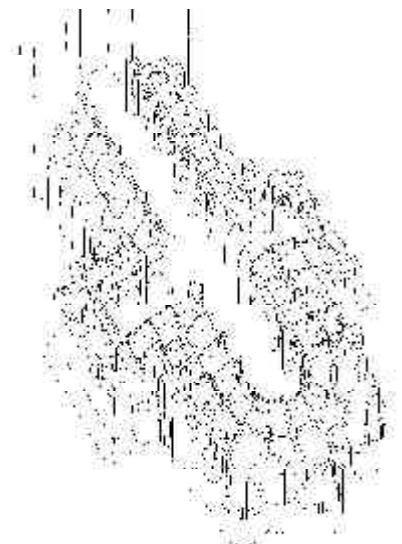
Chartres. Geometrical construction of the apse (cha01)



Chartres, south elevation (int44)



Progression from west (entrance) to east signifies the pilgrim's progress towards God (jam04).



Chartres, state of the construction works in 1210 (jam01)

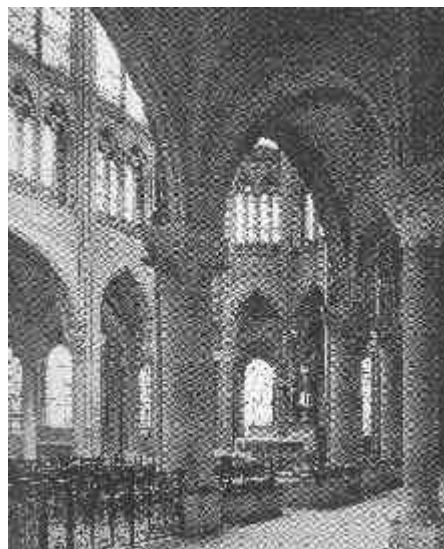
In what manner it be inherent in this world the golden door defines:
The dull mind rises in truth through that which is material
And, in seeing this light, is resurrected from its former submersion.⁶

The progression from west to east signified man's progression towards God, with the eastern end chapels (the rising sun) being the culmination with God. There are doors on all elevations except the east, as this is a destination and not an area of transition.

There is a further association placed on the quality of light – light represents the true light of Christ. One of the most striking qualities of gothic cathedrals is their use of light. The gothic builders went to extreme lengths to bring light inside the church, making the structural design of the cathedral one of the most challenging problems of the day. Note the drawings and isometrics



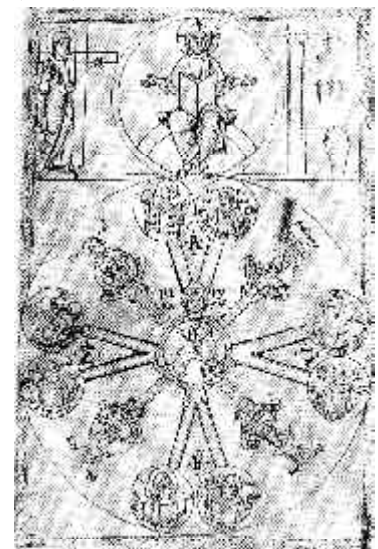
Amiens cathedral. The use of light to emphasise the chapels in the east (hur10).



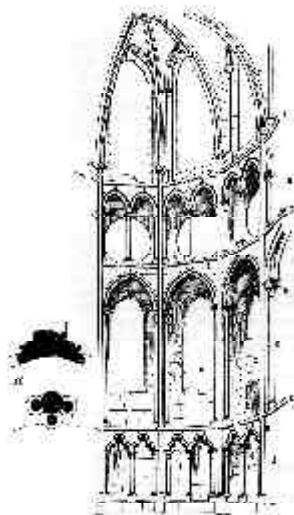
St. Denis, choir looking northeast, 1140-44 (wil02).



Stained Glass, Sainte-Chapelle. 1243-48 (int22)



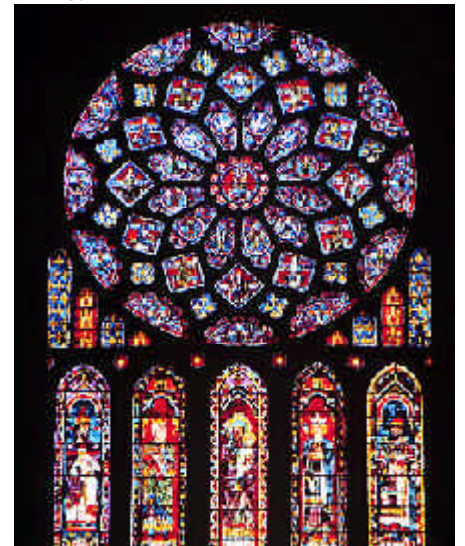
The mystical Paradise of church doctrine in analogy to that of the Old Testament (saa05)



Apse interior of Notre-Dame, Dijon (drawing by Viollet-le-Duc) (vd101).



Nave wall construction, Notre-Dame, Dijon (drawing by Viollet-le-Duc) (vd103)



Chartres. Stained glass on south wall (int18).

prepared by Viollet-le-Duc that demonstrates the slenderness and delicacy employed by the gothic builders to bring in light.

An additional layer of meaning was added to light by the use of stained glass. Allegories and figures, similar in concept to the stone carvings were placed within the design of the glass panels. Abbot Suger, again speaking of St Denis:

We also had painted, by the hands of many masters sought out in various nations, a splendid variety of new windows below and above, from the first in the chevet representing the tree of Jesse to the one over the principal door of the entrance. One of these, urging us onward from the material to the immaterial, shows the apostle Paul turning a mill and the prophets carrying sacks to the mill. The accompanying verse says,

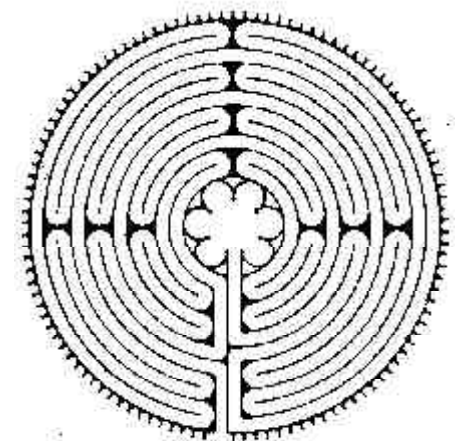
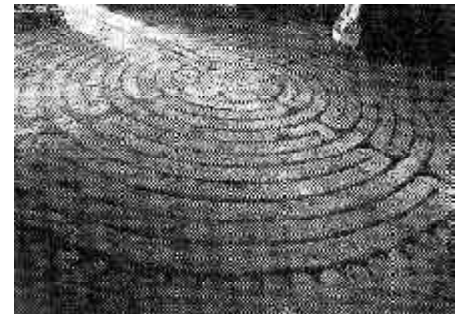
Also in the same window, where Moses raises the bronze serpent,
Just as the bronze serpent slays all serpents,
So Christ raised on the cross slays his enemies.

In the same window, where Moses receives the Law on the mountain,
The law having been given to Moses,
The grace of Christ comes to its aid.
Grace gives life, the letter kills.⁷

Note the Abbot's reference of progressing from the material to the immaterial (i.e., to the City of God), and how this concept is interpreted into the design of the window.

Another example of the expressing the concept of progression towards God is seen in the floor of Chartres. In the Nave there is, in the stone pattern, a labyrinth (see illustrations), which is a symbol of man's way to God, while here on earth.⁸ This is placed on the west-east axis, i.e., the axis that is the progression towards God.

The cathedral also contained a considerable amount of sculptural decoration that was heavily encoded with meaning. For example, in Chartres, one enters from the west beneath the Royal Portal (see illustration). This portal was built c. 1150-1155. The lintel frieze represents the twelve apostles. Above, Christ is enthroned in glory, surrounded by the symbols of the four evangelists. In the recessed arches are angles, prophets, and patriarchs.⁹ Another example is seen in Notre Dame in the Portal of the Last Judgement (see illustration). This was built c. 1225-1230, and as its name indicates, the tympanum represents the Last Judgement. Above, Christ is enthroned showing his wounds, between two angels with the instruments of the Passion. On the left is the kneeling Virgin, on the right St. John as intercessor. The frieze below represents: left, the Chosen; right, a devil leading the Damned, chained together, to Hell. In the centre are St. Michael, with his balance,



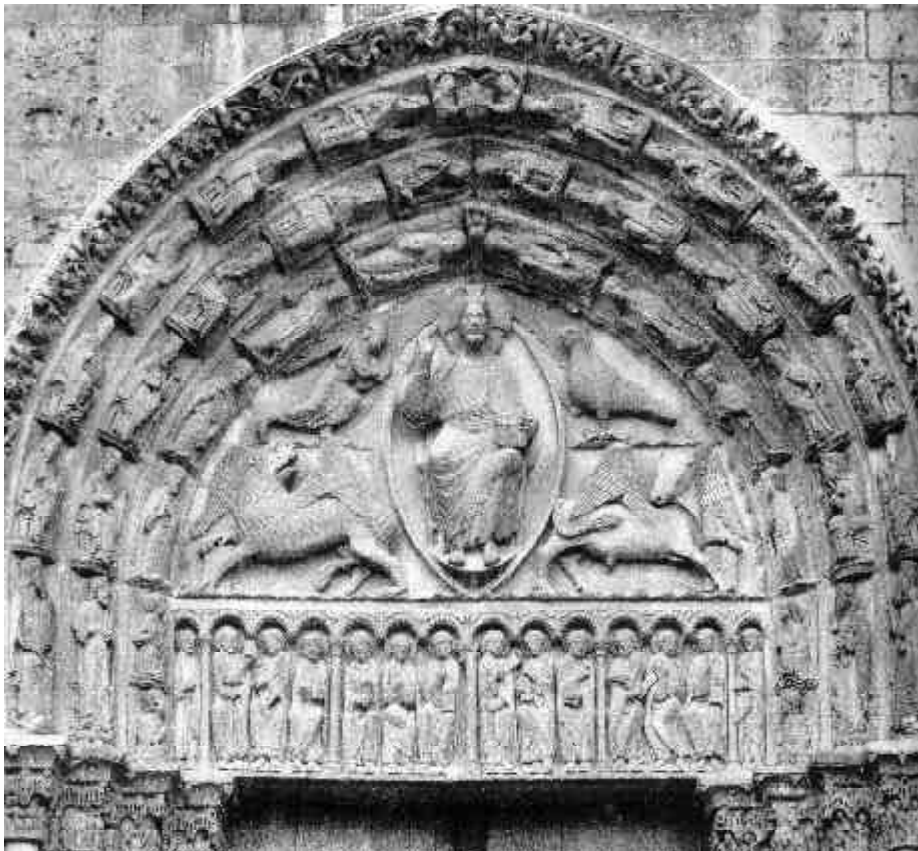
Chartres, the Labyrinth, symbolising man's progress towards God (jam02/03)



Chartres. Stained glass (int17)



Chartres, tympanum; Christ in Majesty (hur01)



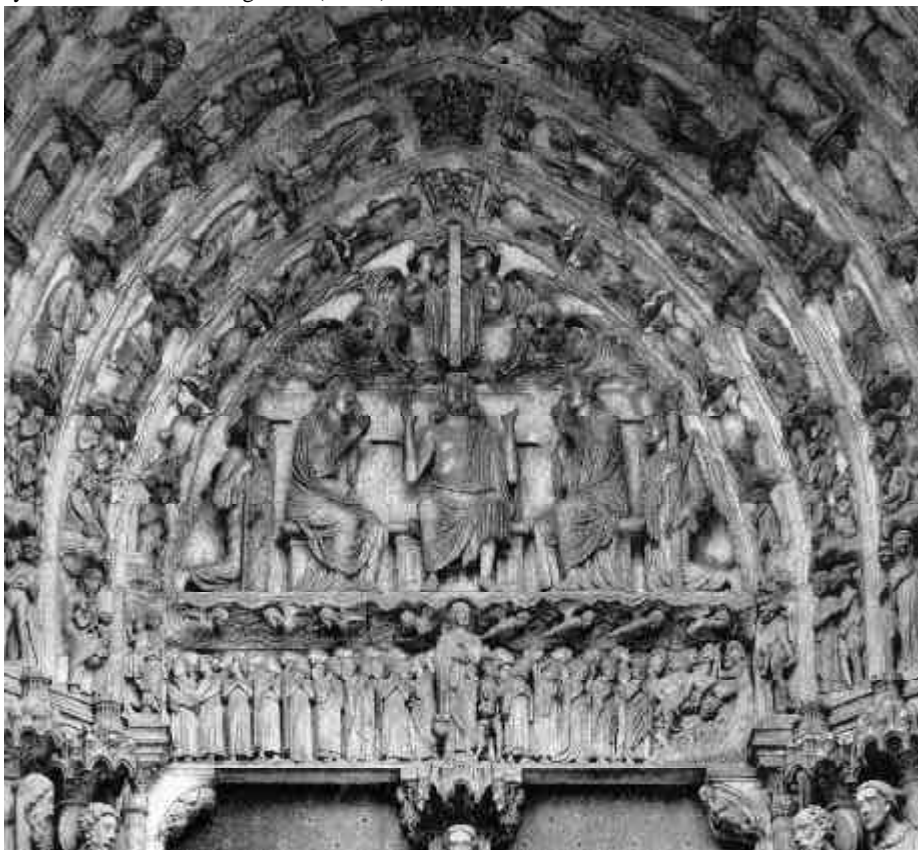
Chartres, Royal Portal above western entrance; Christ enthroned in glory surrounded by the symbols of the four evangelists. (hur06).



Notre Dame, Figures represent vanquished demons (hur03)



Notre Dame, on the pier is the Virgin, with biblical tales above (hur04)



Notre Dame, Paris. Portrayal of the Last Judgement (hur01)



Figures from Bayeux Cathedral.

and the Devil, surmounted by the Celestial Jerusalem.¹⁰

The concept of the City of God, espoused by St Augustine and others, where man's time on earth is transitory, and the purpose of one life is to attain union with God is clearly expressed in the cathedral. This expression is seen on many levels, whether in the underlying orientation, the ordering geometry, the use of light, sculpture, stained glass, or other decorative elements.



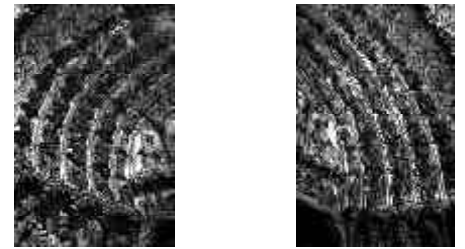
Hieronymus Bosch, The Seven Deadly Sins (int32)



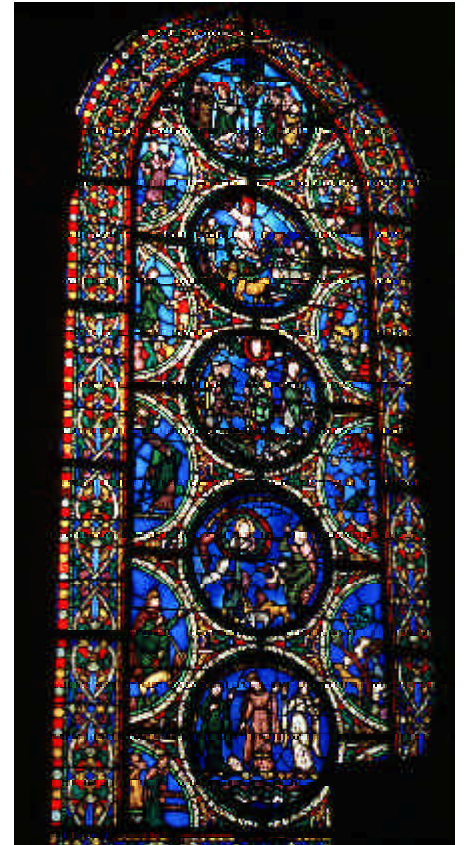
St Denis, map of the Vicinity of the Cathedral in 1706 (int 03)



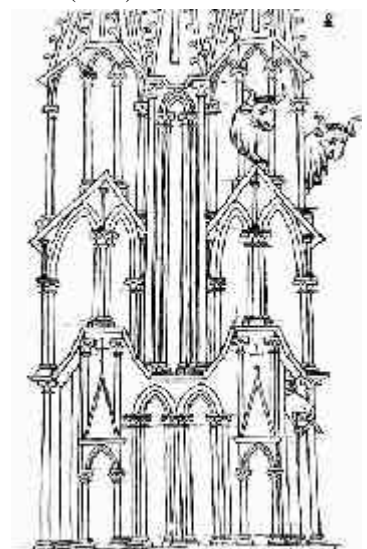
Map of parish surrounding Notre Dame in Paris, c. 1300 (sen01)



Chartres. Inner: Chorus of Angels / Outer: Ancestors of Christ-Jesse Tree (int61-2)



Abbey Church of Saint-Denis, Moses Window (int01)



From Villard de Honnecourt's sketchbook. c. 1220 - (int19)

Conclusion

In this brief paper I have attempted to show the connection between medieval thought and its expression in architecture. There is a strong and consistent connection between the two.

Underlying the entire society is a Christian worldview. This influenced virtually every aspect of society, and is reflected in the resulting buildings. Certain building types are a direct result of this worldview, with the most notable examples being the charitable institutions and the universities. These were institutions that had not existed in Europe prior to medieval times. The architectural expression in these instances is more that the institutions were brought into existence, and not as much the expression of idea through multiple levels of meaning.

The cathedrals, on the other hand, take these ideas much further. The cathedrals embody in a deep and complex manner many of the aspects of medieval thought. In many ways, it appears that society channeled much of their energies and resources into the cathedrals. Certainly in economic terms, the cost of the cathedrals, in today's mindset, is staggering as a percentage of the medieval economy. This allocation of resources is only possible if there is a broad acceptance throughout the society as to the legitimacy of the cathedral as a symbol of overriding importance. Without this social acceptance, it would have been impossible, over the long term, to have dedicated these levels of resources.

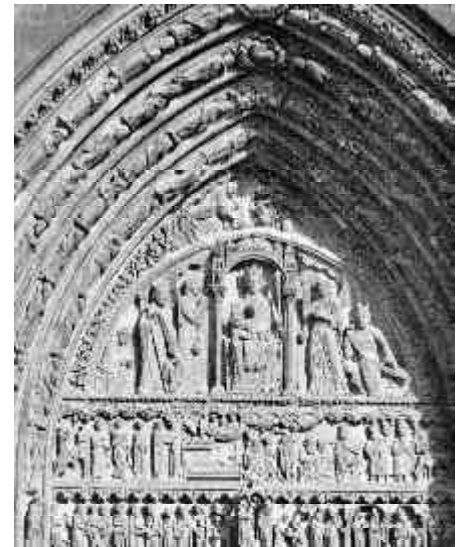
The level of symbolism contained in the cathedral is very deep and covers all aspects of its conception and realisation. Medieval thought accepted the notion of a City of God, and that man's purpose on earth was his union with God. The cathedral is literally and physically this City of God expressed on earth. The goal of a union with God is expressed in the fundamental orientation of the cathedral where the rising sun represented Christ, and that the east was the end of the path of progression when entering the cathedral from the west.

The rising sun is associated with God partially because of the belief of Christ rising from the dead. Light therefore had a special significance to medieval man, and was a further representation of God. This belief is expressed in the manner in which the medieval builders used light in the cathedrals. Given the technology of their day, they went to radical and extreme lengths in their quest for slenderness and the introduction of light. The comparison in the quality of light between, say the Parthenon and Chartres Cathedral is literally night and day.

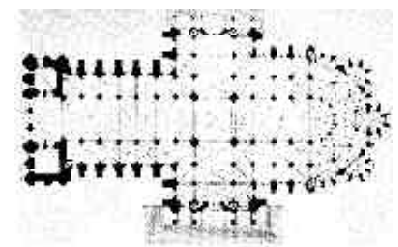
Further manifesting the union with God is the use of geometry. To medieval man, there was a direct connection between God and geometry. The use of geometry as an ordering principal is repeated throughout the cathedral, and is carried from the large scale plan down to small scale details. It is partially



11c worldmap (int28)



Notre Dame; Paris. 'Porch of St Anne' (hur02)



Chartres, plan (bra01)



Medieval image (int74)

this internal consistency in design that gives resonance to the cathedrals when we visit them today. In addition to geometry was a belief in the inherent value of number. There was great store placed in certain numbers as being 'perfect' numbers and this was further expressed in the design of the cathedrals.

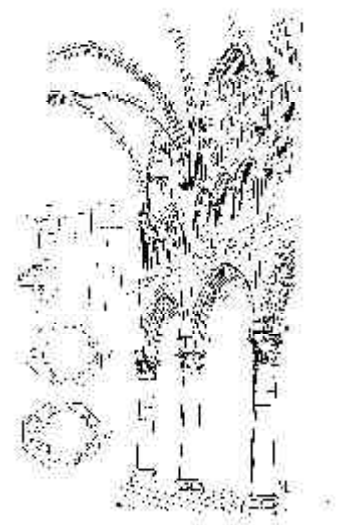
The design of the cathedral is also an embodiment of the liturgy of Christian faith. This is carried through from the overall plan, with altars, chapels, and nave, down into details of carvings, stained glass windows, floor patterns and the like. In fact, it is difficult to find any area or detail of the cathedral that does not contain a level of meaning relating back to Christian medieval faith.

Another aspect of medieval thought and design is the totality of worldview. The vision of the God and the City of God represented a unified vision of man's place on earth, his destiny, his aspirations, as well as an explanation of physical observations such as the movements of planets and stars. This totality of vision was fractured after the Middle Ages to be replaced by theories and postulates that divided the world into convenient divisions of information. Newton's theory of gravity helped to define planetary motion, but it did little for defining man's place in the world. Compare this to someone like St Isidore of Seville whose writings spanned grammar, logic, God, man, etymology, agriculture, law and road making.

It is impossible to live a past life and to understand first-hand the feelings and emotions felt by past times. However, I imagine that the rootlessness and alienation experienced in Modernity would be alien concepts to the medieval man.

As architecture, the cathedral is a physical embodiment of this totality of vision. It sets a very high standard indeed for modern architects – a standard that at times appears impossible to achieve. Applying this standard today would be to create buildings that embody a totality of the worldview as it exists today.

A worthy standard indeed.



The nave of Notre-Dame, Dijon (drawing by Viollet-le-Duc)(vd102).

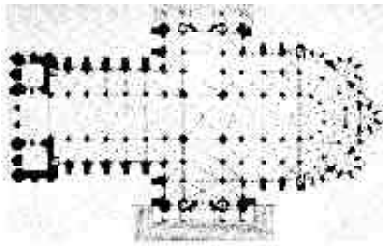


From the Tres Riches Heures-January / The month of giving New Years' gifts (int12)



Book of Hours of Jean d'Evreux. c.1325. by Jean Pucelle (int23)

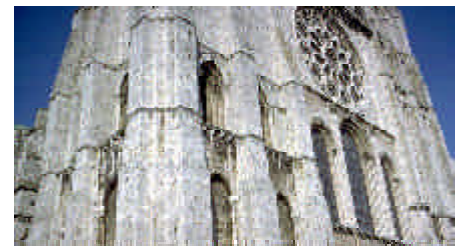
Appendix A - Images of Chartres Cathedral



Plan of 1194 church, north to top (bra01)



West facade (int43/46)



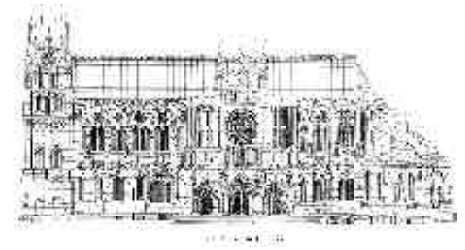
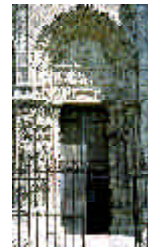
Detail of west facade, north tower (int47)



Detail of west portal (int48)



Central portal of west facade (int49) / East portal of west facade (int50).



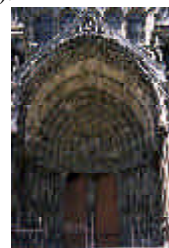
South elevation (int44)



South elevation showing tower at west (int51) / South elevation (int52).



South elevation (int53). / South facade, central portal (int55).



South facade portals (int54).



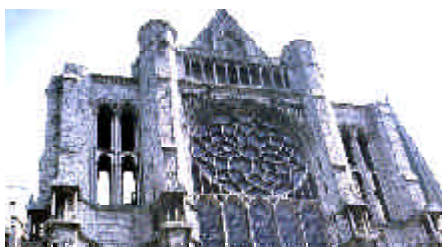
South facade, east side (int56).



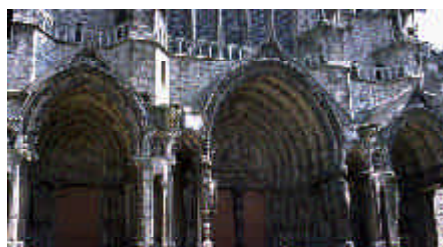
South facade, east side (int57).



North facade, east side (int58).



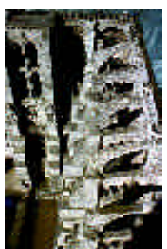
North facade (int59).



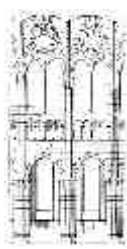
North portal (int60).



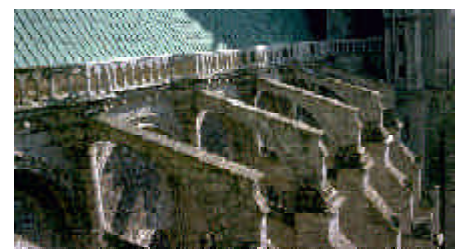
Inner archivolt: Chorus of Angels, Outer archivolt: Ancestors of Christ-Jesse Tree



North, view of central transept (int63). / Interior elevation of north(?) wall (int45).



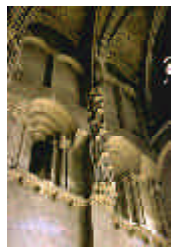
North facade (int64).



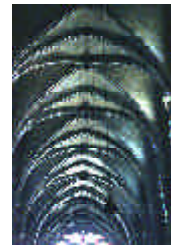
Detail of north facade (int65)



North facade, looking east to transept (int66). / Detail of northwest tower (int67).



Interior looking at west facade (int68). / Interior detail at west (int69).



Interior detail (int70). / Interior looking at eastern chapels (int71).



Cross section (int72).



Interior looking at south window (int73).



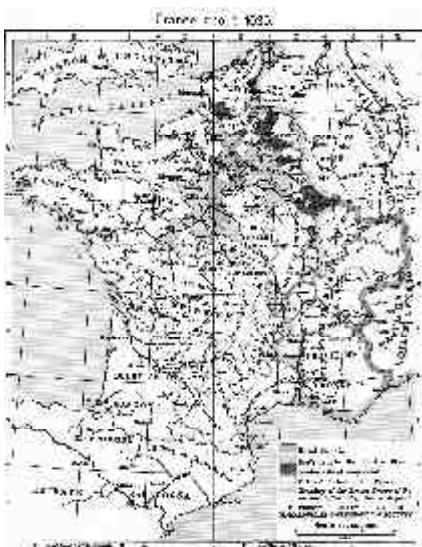
View from southeast (hur05)



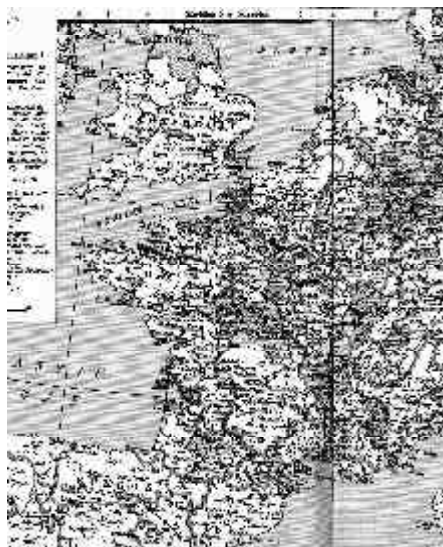
Central tympanum of west porch 'Portail Royal' (hur06)



South transept from southwest / South transept, middle door (jur07/08)



France, about 1035 (in08)



Ecclesiastical Map of France in the Middle Ages (int09)

Notes

Introduction

¹ Mumford, Lewis. *The City in History - Its Origins, Its Transformations, and Its Prospects*. Harvest/HBJ, 1961. Pg. 243.

² Saalman, Howard. *Medieval Cities*. Studio Vista, 1968?. Pg 28.

Background of the Medieval Town

¹ Pirenne, Henri. *Medieval Cities - Their Origins and the Revival of Trade*. Princeton University Press, 1969. Pg. 69-70.

² Pirenne, Henri. *Medieval Cities - Their Origins and the Revival of Trade*. Princeton University Press, 1969. Pg. 71.

³ *John, King of England: Charter of Privileges Granted to Men of Dunwich, 1200*. From: William Stubbs & H. W. C. Davis, eds., *Select Charters of English Constitutional History*, (Oxford: Clarendon Press, 1913), p. 308, reprinted in Roy C. Cave & Herbert H. Coulson, *A Source Book for Medieval Economic History*, (Milwaukee: The Bruce Publishing Co., 1936; reprint ed., New York: Biblo & Tannen, 1965), pp. 208-209. Obtained from the Internet <http://www.fordham.edu/halsall/source/1200Dunwich.html>

⁴ Pirenne, Henri. *Medieval Cities - Their Origins and the Revival of Trade*. Princeton University Press, 1969. Pg. 110.

⁵ Pirenne, Henri. *Medieval Cities - Their Origins and the Revival of Trade*. Princeton University Press, 1969. Pg.135-136.

⁶ Saalman, Howard. *Medieval Cities*. Studio Vista, 1968?. Pg. 23.

Overview of Medieval Commerce

¹ From: F. Keutgen, ed., *Urkunden zur Städtischen Verfassungsgeschichte*, (Berlin: Emil Felber, 1901), p. 353; reprinted in Roy C. Cave & Herbert H. Coulson, eds., *A Source Book for Medieval Economic History*, (Milwaukee: The Bruce Publishing Co., 1936; reprint ed., New York: Biblo & Tannen, 1965), pp. 238-239. Obtained on the Internet <http://www.fordham.edu/halsall/source/1180carpentersguild.html>

² From: James Ingram, trans., *Anglo-Saxon Chronicle*, (London: J. M. Dent & Sons, 1917), p. 93, reprinted in Roy C. Cave & Herbert H. Coulson, *A Source Book for Medieval Economic History*, (Milwaukee: The Bruce

Publishing Co., 1936; reprint ed., New York: Biblo & Tannen, 1965), pp. 115-116. Obtained from the Internet <http://www.fordham.edu/halsall/source/963medstead.html>

Aspects of Medieval Thought

- ¹ Augustine, Saint. *The City of God*. Image/Doubleday, 1958. Pg. 191.
- ² Augustine, Saint. *The City of God*. Image/Doubleday, 1958. Pg. 77.
- ³ Augustine, Saint. *The City of God*. Image/Doubleday, 1958. Pg. 186.
- ⁴ Boyer, M. Christine. *The City of Collective*. MIT Press, 1994. Pg. 81.
- ⁵ Simson, Otto von. *The Gothic Cathedral*. Princeton, 1989. Pg. 24.
- ⁶ Augustine, Saint. *The City of God*. Image/Doubleday, 1958. Pg. 456.
- ⁷ Augustine, Saint. *The City of God*. Image/Doubleday, 1958. Pg. 242.
- ⁸ Augustine, Saint. *The City of God*. Image/Doubleday, 1958. Pg. 241.
- ⁹ Augustine, Saint. *The City of God*. Image/Doubleday, 1958. Pg. 241.
- ¹⁰ Researched on the Internet, from *The Catholic Encyclopedia* at www.newadvent.org/cathen/08186a.htm and at www.geocities.com/Athens/Agora/1968/Isidore.html

Correlations Between Medieval Thought and Political Power

- ¹ *ibid.*
- ² *The Golden Bull of the Emperor Charles IV 1356 A.D.*, Source: Henderson, Ernest F. *Select Historical Documents of the Middle Ages* London : George Bell and Sons, 1896. Obtained from the Internet <http://www.yale.edu/lawweb/avalon/medieval/golden.htm>
- ³ *Declaration of the Powers of the Count of Toul over the City of Toul, 1069*, From: N. Schaten, S.J., ed., *Annales Paderbornenses*, (Neuhaus, 1693), Vol. I, p. 295; reprinted in Roy C. Cave & Herbert H. Coulson, eds., *A Source Book for Medieval Economic History*, (Milwaukee: The Bruce Publishing Co., 1936; reprint ed., New York: Biblo & Tannen, 1965), p.136. Obtained from the Internet <http://www.fordham.edu/halsall/source/952osnabruck.html>

Development of Institutions in the Middle Ages

¹ Mumford, Lewis. *The City in History - Its Origins, Its Transformations, and Its Prospects*. Harvest/HBJ, 1961. Pg. 267.

² Mumford, Lewis. *The City in History - Its Origins, Its Transformations, and Its Prospects*. Harvest/HBJ, 1961. Pg. 268.

³ *Foundation Charter of Cluny, 910*. From the edition of A. Bruel in "Recueil des Chartes de L'Abbaye de Cluny". Paris, 1876, trans in Ernest F. Henderson, *Select Historical Documents of the Middle Ages*, (London: George Bell and Sons, 1910), 329-333. Obtained from the Internet <http://www.fordham.edu/halsall/source/chart-cluny.html>

⁴ Mumford, Lewis. *The City in History - Its Origins, Its Transformations, and Its Prospects*. Harvest/HBJ, 1961. Pg. 276.

⁵ *Robert de Courçon: Statutes for the University of Paris, 1215*. From the From, Chart. Univ. Paris. 1, No. 20, P. 78. Latin., trans in University of Pennsylvania. Dept. of History: *Translations and Reprints from the Original Sources of European history*, published for the Dept. of History of the University of Pennsylvania., Philadelphia, University of Pennsylvania Press [1897?-1907?]. Vol 2: no.3, 12-15. Obtained on the Internet <http://www.fordham.edu/halsall/source/courcon1.html>

Architectural Expression and the Collective Memory

¹ Pirenne, Henri. *Medieval Cities - Their Origins and the Revival of Trade*. Princeton University Press, 1969. Pgs. 135-6.

² Saalman, Howard. *Medieval Cities*. Studio Vista, 1968?. Pgs. 31-2.

³ Pirenne, Henri. *Medieval Cities - Their Origins and the Revival of Trade*. Princeton University Press, 1969. Pg. 131.

⁴ Heer, Friedrich. *The Medieval World*. Weidenfeld and Nicolson; 1961. Pg. 51.

⁵ Saalman, Howard. *Medieval Cities*. Studio Vista, 1968?. Pg. 28.

⁶ Sennett, Richard. *Flesh and Stone*. Faber and Faber, 1994. Pg. 191.

⁷ Sennett, Richard. *Flesh and Stone*. Faber and Faber, 1994. Pg. 159.

Architectural Expression of Belief - The Cathedral

¹ Simson, Otto von. *The Gothic Cathedral*. Princeton, 1989. Pg. 8.

² Simson, Otto von. *The Gothic Cathedral*. Princeton, 1989. Pg. 24.

³ Quoted from Simson, Otto von. *The Gothic Cathedral*. Princeton, 1989. Pg. 130.

⁴ Quoted from Simson, Otto von. *The Gothic Cathedral*. Princeton, 1989. Pg. 130.

⁵ James, John. *Chartres*. Routledge; 1982. Pgs 96-98.

⁶ Abbot Suger of Saint-Denis, excerpts from *De Administratione and Scriptum Consecrationis* trans. and ed. by Erwin Panofsky (Princeton: Princeton University Press, 1946). From section XXVII - *Of the Cast and Gilded Doors*. Obtained on the Internet <http://www.columbia.edu/~eer1/suger.html>

⁷ Abbot Suger, *On the Abbey Church of St.-Denis and its Art Treasures*, ed. tr. and annotated by Erwin Panofsky, 2 ed. Gerda Panofsky-Soergel (Princeton: Princeton UP, 1946/1979). From section XXXIV. Obtained on the Internet <http://vrlab.fa.pitt.edu/medart/menufrance/sdenis/windows/TwelfthcWindows.html>

⁸ James, John. *Chartres*. Routledge; 1982. Pgs 86-7.

⁹ Hurlimann, M. *French Cathedrals*. Thames and Hudson, 1951. Pg 29.

¹⁰ Hurlimann, M. *French Cathedrals*. Thames and Hudson, 1951. Pgs 27-8.

Illustration Sources

The captions below the illustrations contain in parentheses as three letter and two number designation, e.g. (her03). The three letters are keyed to the following texts, with the exception of images designated by (int--), which are taken from the Internet. Refer to the Bibliography for full information on referenced books.

BRA - Branner, R. Chartres Cathedral. Thames and Hudson, 1969

CHA - Charpentier, L. The Mysteries of Chartres Cathedral. Thorsons, 1972.

COU - Courtauld Institute Illustration Archives, Archive 3, Part 7 France, Bayeux and Coutances

HER - Heer, F. The Medieval World

HUR - Hurlimann, M. French Cathedrals. Thames and Hudson, 1951.

INT - Internet Images

int01 - (<http://vrlab.fa.pitt.edu/medart/menufrance/sdenis/windows/Sdenwind-Moses.html>)

int02/03 - (<http://vrlab.fa.pitt.edu/medart/menufrance/sdenis/sdenmap.html>)

int08 - (<http://info.pitt.edu/~medart/image/france/france-l-to-z/mapsfrance/sf061fra.jpg>)

int09 - (<http://info.pitt.edu/~medart/image/france/france-l-to-z/mapsfrance/sf094fra.jpg>)

int10 - Medieval London :Shepherd, p. 75 (<http://vrlab.fa.pitt.edu/medart/image/england/england2/mapsengl/se075lon.jpg>)

int10 - (<http://vrlab.fa.pitt.edu/medart/image/england/england2/mapsengl/se075lon.jpg>)

int11 - (<http://vrlab.fa.pitt.edu/medart/image/england/england2/mapsengl/se097eng.jpg>)

int12 - (<http://humanities.uchicago.edu/images/heures/january.jpg>)

int13 - (<http://humanities.uchicago.edu/images/heures/september.jpg>)

int15 - (<http://www.clues.abdn.ac.uk:8080/besttest/alt/translat/trans1r.html>)

int17 - (<http://www.uic.edu/classes/ah/ah243/ah243-396.html>)

int18 - (<http://www.uic.edu/classes/ah/ah243/ah243-401.html>)

int20 - (<http://www.uic.edu/classes/ah/ah243/ah243-383.html>)

int23 - (<http://www.uic.edu/classes/ah/ah243/ah243-471.html>)

int24 - (<http://www.konbib.nl/kb/100hoogte/hh-en/hh021-en.html>)

int33 - (<http://metalab.unc.edu/louvre/paint/auth/bosch/judge/>)

int34 - (<http://metalab.unc.edu/louvre/paint/auth/bosch/7sins/>)

int36 - (<http://metalab.unc.edu/louvre/paint/auth/eyck/ghent/>)

int37 - (http://www.bnf.fr/enluminures/manuscrits/aman4/i3_0072.htm)

int38 - (http://www.bnf.fr/enluminures/manuscrits/aman3/i3_0066.htm)

int39 - (http://www.bnf.fr/enluminures/manuscripts/aman7/i4_0063.htm)
 int40 - (<http://www.geocities.com/Athens/Parthenon/8063/cluny.html>)
 int41 - (<http://www.geocities.com/Athens/Parthenon/8063/cluny.html>)
 int42 - (<http://www.geocities.com/Athens/Parthenon/8063/cluny.html>)
 int43-73 - (<http://info.pitt.edu/~medart/menufrance/chartres/plandraw.html>)
 int75-79 - (<http://perso.wanadoo.fr/bbcp/english/index.html>)
 int80 - (<http://www.trytel.com/~tristan/towns/townint7.html>)
 int81 - (<http://www.trytel.com/~tristan/towns/ssl06.html#p02>)
 int82 - (<http://www.trytel.com/~tristan/towns/townint7.html>)
 int83 - verging in the marketplace (int83). (<http://www.trytel.com/~tristan/towns/townint5.html>)
 int84 - (<http://www.trytel.com/~tristan/towns/colcmap1.html#p19>)
 int85 - (<http://www.henry-davis.com/MAPS/EMwebpages/205mono.html>)

JAM - James, J. Chartres. Routledge, 1982.

ROR - Rorig, F The Medieval Town

SAA - Saalman, H. Medieval Cities

SEN - Sennett, R. Flesh and Stone. Faber, 1994.

SIM - Simson, Otto von. The Gothic Cathedral. Princeton, 1974.

VD1 - Viollet-le-Duc, E. The Architectural Theory of Viollet-le-Duc, MIT 1990

VD2 - Viollet-le-Duc, E. The Foundations of Architecture. Braziller, 1990

WIL - Wilson, C. The Gothic Cathedral; Thames and Hudson, 1990

Bibliography

Ariès, Philippe. *Western attitudes toward death : from the Middle Ages to the present* / trans. - Baltimore; London : Johns Hopkins University Press, 1974.

Augustine, Saint. *The City of God*. Image/Doubleday, 1958.

Boyer, M. Christine. *The City of Collective Memory*. MIT Press, 1994

Colomina, Beatriz. *Privacy and Publicity : Modern Architecture as Mass Media*. MIT Press, 1996.

Coulton, G.G. *Medieval Village, Manor, and Monastery*. Harper, 1960.

Dunne, John S. *The City of the Gods - A Study in Myth and Mortality*. University of Notre Dame Press, 1978.

Halbwachs, Maurice. *The Collective Memory*. University of Chicago, 1992.

Harries, Karsten. *The Ethical Function of Architecture*. MIT Press, 1997.

Heer, Friedrich. *The Medieval World*. Weidenfeld and Nicolson; 1961.

Hurlimann, M. *French Cathedrals*. Thames and Hudson, 1951.

James, John. *Chartres*. Routledge; 1982.

Mumford, Lewis. *The City in History - Its Origins, Its Transformations, and Its Prospects*. Harvest/HBJ, 1961.

Pirenne, Henri. *Medieval Cities - Their Origins and the Revival of Trade*. Princeton University Press, 1969.

Rossi, Aldo. *The Architecture of the City*. MIT, 1984.

Rösig, Fritz. *The Medieval Town*. Batsford, 1967.

Saalmann, Howard. *Medieval Cities*. Studio Vista, 1968?.

Sennett, Richard. *The Fall of Public Man*. Norton, 1974.

Sennett, Richard. *Flesh and Stone*. Faber and Faber, 1994.

Simson, Otto von. *The Gothic Cathedral*. Princeton, 1989.

Suger, Abbot. *De Administratione and Scriptum Consecrationis* trans. and ed. by Erwin Panofsky. Princeton University Press, 1946. (Partial excerpts obtained through the Internet).

Suger, Abbot. *On the Abbey Church of St.-Denis and its Art Treasures*, ed. tr. and annotated by Erwin Panofsky, 2 ed. Gerda Panofsky-Soergel. Princeton University Press, 1946/1979. (Partial excerpts obtained through the Internet).

Tafuri, Manfredo. *Architecture and Utopia - Design and Capitalist Development*. MIT Press, 1976.

Temko, Allan. *Notre-Dame of Paris - The Biography of a Cathedral*. Viking, 1952.

Wilson, Christopher. *The Gothic Cathedral*. Thames and Hudson, 1990.