

Medieval perception of space and place in the architecture of Gothic churches

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Our appreciation of medieval church and cathedral architecture is reliably enhanced when we find contemporary indications of perception and cognition involved in the making of such works. Modern assumptions about these operations in medieval architecture need to be checked against any textual or other sources which indicate the mentality of the time, albeit there is little that has explicit reference to architecture. This article touches briefly on texts of theology, metaphysics, and science that show a perception of *space mid place*, and suggests the significance of this in the architecture. Conceptualization according with the intention for the building must have had a matrix of thought. Particular awareness of the material medium, and of the physical body of a church, would inevitably inform the process. Composition exercising great power of judgement must have had a certain kind of rationale. Such formation of place is illustrated in Gothic art and architecture.

Key words: space, place, matrix, medium, body, rationale.

La perception médiévale de l'espace et du lieu révélée dans l'architecture des églises gothiques

Notre appréciation de l'architecture de l'église et de la cathédrale médiévales est mis en valeur de façon sûre lorsque nous découvrons que des signes de perception et de cognition contemporaines se mettaient à l'oeuvre lors de leur construction. Cependant, il faut que des suppositions modernes soient vérifiées en se référant aux textes et aux autres sources qui indiquent la mentalité de l'époque, bien qu'il y en ait peu qui parle formellement de l'architecture. Cet article touche brièvement sur des textes de théologie, de métaphysique et du science, qui démontrent une perception de *Vespace* et du *lieu*, et en suggèrent la signification dans l'architecture. L'accord du concept avec l'intention du bâtiment aurait eu une matrice de pensée, Une conscience particulière du milieu matériel et du corps physique de l'église informeraient inévitablement le processus. La composition, exerçant d'un grand jugement, aurait eu un raisonnement distincte. Une telle mise en place de lieu s'est démontré dans l'art et l'architecture gothique.

Architectural theory of the last half century has given much attention to notions of 'space'. Where these have been critically considered the power of significant 'place' has often been recognized. Over this same period, in architectural history treating medieval architecture it has been not uncommon to analyse buildings in terms of formal and spatial qualities, but with perhaps not the same critical range. Such analysis of Gothic church architecture seems to assume from modern theory that there must have been a conscious and conceptual shaping of space as a key concern and technique of the medieval designers also. This seems open to question: we might suspect that throughout the Middle Ages conscious regard of space was less determinative than function, place, the ordering of bodies, the magnitude of matter, and even the imagery of spiritual models. As we here try to appreciate medieval perceptions from contemporary texts we will observe some correspondences with modern theory, but see that there was a radically different order of involvement with architecture that architectural history gives insufficient weight to.

A brief introduction is warranted to note some of the aspects of architectural theory about space. This can be followed by some discussion of how modern ideas of space have been used in architectural history of the medieval period. Then I will suggest an outline of the perception of space and place in medieval churches.

In architectural theory

A timely instance of present-day theory is the article in *SAJAH* by Anika Grobler and Schalk Le Roux, "Criteria for spatial definition", which "investigates the elements and principles that can be used as criteria to define the static, physical model of space in the built environment" (2006:47). Grobler and Le Roux provide a "spatial vocabulary in spatial articulation [which] consist of four elements: point, line, plane and volume." These we can also discover in the

medieval grammar of perception of objects. Here it is said that these geometric elements, "can be manipulated to physically arrange interiors to create spatial composition. With the use of ordering principles as visual devices, elements are organised to create structured and legible space that becomes meaningful to the user [...]."

This indicates a view and valuation of composed space in itself—that it might be found meaningful. From the context (a "trialectic relation") they construct, and from the various authors cited, we gain the idea that when static, enclosed, space is "further defined by the influences of social practices, sociality, and also the contextual surrounding, as historicity"—by this and through "meaningful spatial definition" *space* may become *place*. This too has some resonance with what we will see of medieval perception of place. In their conclusion Grobler and Le Roux (2006:67) first cite A. Lipman "...the design consists of a succession of built and open spaces, of solid and void juxtapositions", and then say, "The description here includes the integration of spatial elements and organisation within a harmonised composition." The belief is that space is of key concern in design; and that by matching it to the context and use a sense of place arises.

Twentieth-century architectural theory is illustrated well in *Elements of Architecture: From form to place*, by Pierre von Meiss. After chapters traversing phenomena of perception, order, measure, and fabric and object, there are principal chapters on space and place. Concerning space he makes these general assertions (1990:101):

For the architect the space or the gap between ground, walls and ceiling is not nothingness, quite the contrary: the very reason for his activity is to create the hollow in order to contain. [...] Any critique or architectural history must take account of this double aspect of hollow and solid in buildings. A work of architecture which is designed or considered only from the exterior ceases to be architecture and becomes a stage set. Conversely, the reduction to just the spatial characteristics eludes the concrete signs and symbols underlain by its material nature.

Similarities which we will see between modern theory and medieval belie the differences in the answers to questions as to purpose and meaning.¹ Here some fundamental questions are implicit: to *contain* what? *signs* and *symbols* of what? One senses an effort running through much serious modern theory to capture something ultimately valuable and meaningful—post-modernism is evidently the fruit of failure to do so. Von Meiss (1990:101) quotes August Schmarsow, writing in 1897, expressing liberating ideas about space:

... Man imagines in the first place the space which surrounds him and not the physical objects which are supports of symbolic significance. All static or mechanical dispositions, as well as the materialization of the spatial envelope, are only means for realizing an idea which is vaguely felt or clearly imagined in architectural creation ... Architecture is 'art' when the design of space clearly takes precedence over the design of the object. Spatial intention is the living soul of architectural creation.

Referring particularly to interiors von Meiss says, "[...] there has been an evolution away from the consideration of objects towards the consideration of space." While we can enjoy supposed freedom and try to become skilled in the new discipline, when we compare it to medieval perceptions we might ask whether the 'objects' have to be attended to afresh.

In architectural history

The rising emphasis on space in architectural theory (initiated particularly in Germany in the 1890's by such as Schmarsow) influenced the interpretations of architectural historians. Paul Frankl, for example, in an early work of 1914, and later in *Gothic Architecture* in 1962, used four analytical categories, the first, peculiarly pertaining to architecture, being 'spatial form' or 'spatial composition'—"the organization of the space we move in, the space that extends around us." (Crossley 2000: 9, 10) The others are: 'corporeal form' treating mass and surface; 'optical form' as perceived (via light, colour, articulation etc) by an observer; and 'purposive intention'. This last on social and religious intention is given a separate part in *Gothic Architecture*. Paul

Crossley (2000: 13) comments, "As so often in the book, the theoretical pronouncements of Part Two do not integrate logically or historically with the visual analysis of Gothic buildings in Part One." It is Frankl's category of *spatial form* that I question here.

More recent work by historians, such as Charles Radding, William Clark, and Stephen Croddy perpetuates the doctrine that the formal articulating of 'space' was a fundamental concern and technique in medieval architecture. At the level of the cognitive processes, Radding and Clark assume that Gothic designers must have been somehow *shaping space* consciously and conceptually. They posit (1992: 12) that:

The shift is away from [Romanesque] thinking of design in terms of flat, undifferentiated planes of walls and ceilings toward discovering means of delineating the spatial units and volumes contained within buildings; indeed, it hardly overstates things to say that the articulation of spatial volumes was central to the architecture of the late eleventh and early twelfth centuries.

Croddy (1999:268) also thinks in terms of space: 'A building's spatial form is an abstraction analogous to the abstract forms of geometry.' He states that abstraction of geometric shapes, and 'the structuring of space', were the distinguishing preoccupations of the Romanesque and Gothic designers respectively.

The notion of *space* in architectural history is not generally firmly connected to, or derived from the subject in architectural theory. And in both fields *space* seems to defy useful objective description, and requires elaborate attempts to make sense of it. We need an outline of perception which draws on medieval sources before we can attempt to cope with the difficulties Crossley alludes to: "The elusive welter of competing sensations transmitted by the Gothic cathedral makes the prospect of reconstructing the real perceptions of medieval viewers a daunting task." (2000: 19) If our understanding derives from medieval metaphysics and theology, and if it is capable of being applied to the architecture, it should be able to integrate artifacts and meaning.

With the Renaissance came a more powerful use of theoretical geometry in controlling and shaping things and their physical context: in visual terms it contributed to an aesthetic of *space*.² Margaret Wertheim (1999: 107) draws the contrast to medieval visual imaging and non-material sensitivity that the classical Renaissance brought:

Physical vision had now supplanted 'spiritual vision' as the representational ideal: The eye of the material body had replaced the 'inner eye' of the Christian soul as the primary artistic 'organ' of sight. Instead of an image being valued for its evocation of an invisible spiritual order, it was now valued by how closely the artist simulated the physical world.

If we see reawakenings of desire for the evocation of invisible things we should be informed about such a spiritual order of the past and study the works which survive. Could these indeed be connected to perceptions of invisible and spiritual realities?

Medieval metaphysics of space and place connected to architecture

To begin we may sketch some intellectual and psychological ideas, particularly concerning perception. Owen Barfield (1965: 94) reasoned that medieval artists could have discovered pictorial perspective 'if depth in space had characterized the collective representations they wish to reproduce, as it characterizes ours'. He suggests their mode of experience thus:

The world was more like a garment men wore about them than a stage on which they moved. In such a world the convention of perspective was unnecessary. To such a world other conventions of visual reproduction, such as the nimbus and the halo, were appropriate as to ours they are not. It was as if the observers were themselves *in* the picture. Compared with us, they felt themselves and the objects around them and the words that expressed those

objects, immersed together in something like a clear lake of—what shall we say?—of 'meaning' if you choose. [...] like a mirror in which the object is discerned.

This is not to imply a less capable mentality, but one very different from ours; and in respect of just this subject of spatial perception we will find it hard enough to realise how different. Barfield chooses the word 'meaning' astutely, and that brings in the whole level of connectedness to, participation in, things of the spirit.³

The sort of mentality and spirituality Wertheim describes (above) underlies the question of what sort of awareness of space there was in the design of the medieval churches and cathedrals. In the over-arching desire to comprehend the form and mode of all created things, and to apprehend God in the significations of the church, the architecture indeed immersed the participants—they were *in* the picture, as Barfield put it. (See Figure 1.) But if we try to conceive this according to post-medieval notions of physical space we see that hierarchies, operations, ends, composition, proportion, properties, and accidents, cannot be predicated of *space* as they are of corporeal things, and as they were of *place*.

To set the scene we should expect to start with the highest body of medieval cosmology, the firmament. It is described by Robert Grossteste (1175-1253), theologian and scientist, in its perfection of form and substance, and evidently he regards it as the model for all bodies; it is "the first body". In the concluding section of *De luce* (2000: 10) he analyses it thus:

The highest body, which is the simplest of all bodies, contains four constituents, namely *form*, *matter*, *composition* and the *composite*. Now the form being the simplest holds the position of unity. But matter on account of its twofold potency, namely its susceptibility to impressions and its receptiveness of them, and also on account of its denseness which belongs fundamentally to matter but which is primarily and principally characteristic of a thing which is a duality, is rightly allotted the nature of a duality. But composition has a trinity in itself because there appears in it informed matter and materialized form and that which is distinctive of the composition, which is found in every composite as a third constituent distinct from matter and form. And that which is the composite proper, over and above these three constituents, is classed as a quarternary.

The four constituents—form, matter, composition, the composite⁴—are (in medieval terms) *actual* in the firmament; and they stand above and before all that is being raised: for they are *potential* in the conceptual, actualized, contracted, composed things.⁵ The point of this here is that the four constituents are predicated of a body, not of a spatial quality. If however we can understand space as full, permeable to the firmament, defined in the bodily; this composed complex we may more usefully call *place*.

In the earth-heaven polarity there is connection between the lower and the higher. The church interior is the place one is *in* as participant in the meaning of it. Sensory perception is connected to spiritual perception. I will try to show how the cosmological model worked effectually in Gothic architecture, showing four ways in which *place* was constituted:

1. The creative matrix as a plenum—*conceptual* place. All things that pertain to this world can be brought in and located in relation to the higher, the heavenly.
2. The material medium of light—*actualized* place. There must be a medium in which to immerse the lower for the transmission of higher existence.
3. The substantial body in appearance—*contracted* place. The lower material has to somehow resemble the higher for participation in the spiritual.
4. The rationale and figure of the three conditions of matrix, medium, and body—*composed* place. This was what the architecture was charged with.

Conceptual place: the creative matrix as a plenum

In the first part of the *Timaeus* Plato describes the universe, model and copy, as the work of *reason*. But the second part brings in the idea of the "indeterminate cause", *necessity*, proportioning and measuring and producing patterns of shape and number in the physical order, unpredictable things which have to be dealt with. So to the model and copy, he adds a form to accommodate the indeterminate cause influencing things which are "coming to be". Showing its character by calling it *receptacle* and *winnowing basket* he then names it *space*. In it and by it everything is accommodated and ordered by "reasonable persuasion". After describing it to a degree, he admits rational and practical objections, thus (*Tim.* 20. 1965:70):

Space which is eternal and indestructible, which provides a position for everything that comes to be, and which is apprehended by the senses by a sort of spurious reasoning and is hard to believe in—we look at it indeed in a kind of dream and say that everything that exists must be somewhere and occupy some space, and that what is nowhere in heaven or earth is nothing at all.

This seems conceptually similar to what we call architectural space.⁶ But the senses fail to find any information about it. How can one think and reason about space abstractly if it is defined actually by reference to solid things? So Plato concentrates on its function—as receptacle, mother, nurse, winnowing basket; each is an image providing a position, a place, for everything. Space is occupied by things and exists for their sake.

When St Augustine mentally pictured all creation, including things invisible, the heavens, and everything spiritual, he wrote (*Confessions* 7.1. 1961: 138):

I thought of spiritual things, too, as material bodies, each in its allotted place. I imagined the whole of your creation as a vast mass made up of different kinds of bodies, some of them real, some of them only the bodies which in my imagination took the place of spirits. I thought of this mass as something huge.[...] I pictured you, O Lord, as encompassing all this mass on all sides and penetrating it in every part, yet yourself infinite in every dimension.

The elements in this innate imagination are: a conceptual place for everything, the finite yet vast plenum, and every part being filled by God. It is credible to see correspondences between Plato's receptacle and nurse, *space*, Augustine's vast mass, *creation*, Grosseteste's first body, *firmament*, and the church as a *place*. The material church was a matrix, even as the spiritual is called Mother Church.⁷ In it things were born, positioned, done, and brought into relation to the eternal—such was the conceptual place answering the mind of the medieval church. It was seen as a plenum; there was no empty space; the void was abhorred.

Richard Dales (1957: 24) says Grosseteste "is in complete agreement with Aristotle that void does not exist." Grosseteste wrote: "Of course, there cannot be three dimensions unless there is a body. Place always fills space.[...] And indeed there cannot be dimensions without body, it is impossible for a place to be void of body." The intrinsic importance of all *things*, in order and plenary power, required fit associational arrangement and shaping of places for them to cohere and be coherent, indeed three dimensions. *Space* is a subservient concept.

Commenting on the "Cosmogony" of Thomas Aquinas (c. 1225-74), William Wallace (1967: 190), explains that an object (body) has significance in relation to the context of its material place, not the abstract space. The place, not space, was generatrix and matrix of all that was within it or that acquired meaning by virtue of its physical participation. He writes:

The motion of bodies was reckoned not according to their traversal of space, but rather according to their change of place. Place itself was defined, following Aristotle, as *the first immobile surface of the circumambient medium*. A body changes its place by taking up a new position, or location in place, which is designated by the Latin term *ubi*. Apart from the simple location in place, it is also possible to specify the arrangement of the parts of a body with respect to place; this further specification gives rise to the category of situation, in Latin, *situs*. [...]



Figure 1
Jesus reasoning in the Temple. Psalter
of Queen Mary. (First half of 14th century.
London: British Museum. From J. Dupont &
C. Gnudi, *Gothic Painting*, Geneva: Skira, 1954.)

Such was the significance of *ubi* and *situs* in astronomy. By the same trope when the "body" is a person these associations impinge on human experience in ways so intricate they can hardly be isolated. If the matrix be architectural we can say: First: As a person changes location, the "movement" is a matter of *where* one is *and* the perceptions of the new position; every place is a significant *ubi*, because every movement is in relation to the significations of the building, not merely in space. Second: The person is incorporated as a participant in the place, immersed in it as in a macrocosm. In posture, gesture, orientation, and perception one is linked extrinsically to the universe. In medieval cosmology above all was the Empyrean, the measureless and timeless *place* of glory. Thomas argued from the state of glory which is both spiritual and corporeal that the glory must be in some body incorruptible and of lucid brilliance. Likewise the clarity and glory of the physical *locus* is matched to clarity and glory of the spiritual. This is the conceptual place of the medieval church.

The scene in the Queen Mary Psalter miniature (Figure 1), is the Temple, each arch and niche defining a place as within a Gothic church. The drawing functions didactically, and spatial evocation is of no relevance; what is is the corporate attention to the creative words of wisdom. The figure can be transposed to the multitude of intelligent souls and ardent saints filling the arcades, galleries, windows, and vaults of cathedrals, the place full of light and understanding. Another representation of a conceptual place as a plenum was in the "Tower of Wisdom" drawings; a popular subject from the early fourteenth century. Here the whole moral structure was built as an architecture of significant places (with a primarily mnemonic function), every doorway and window, and even every stone, having its designation. In such a drawing of comprehensive meaning there was no purpose in depicting space—indeed it would be contrary. William Durand, writing around 1286 (Frisch 1971: 35), uses the figure of the stones of the church in the perception typical of the period: "All the stones are polished and squared,—that is, holy and pure, and are built by the hands of the Great Workman into an abiding place in the Church [...]." The church is created and filled as a place made up of every member in its *locus* and *situs*.

The vastness and intricacy of cathedral architecture (Figures 2 & 3), in which everything is accommodated—the entire order, the *pleroma* and each part in its particularity—supported locational associations, rational and affective. Natural symbols played their part—natural

by virtue of location (for instance, elevated arcades and roof vaults)—having references to the cosmos, the continuum of place, and a complex of hierarchies. Images of angels, people, creatures, all visibly coexisting, and their acts, indicated conceptual places at once typical and unique. Thus the *form* of the church itself was a plenum of meaning, not a notional space.



Figure 2
Cologne, church of St Gereon. The decagon.
1219-27 (Photo: J. Lewis)



Figure 3
Lincoln cathedral. Choir and N-E transept.
1256-1320 (Photo: J. Lewis)

Actualized place: the material medium of light

Perception of a place in the making moved from the conceptualization of it to its actualization. The medieval insight of the *actus/potentia* polarity, as explained by Barfield (1965: 88), was that, "being is potential existence; existence actualizes being." Actualization has reference to something other than the creature. All was referred to God whose being is wholly actual. *Participation* is one key understanding—the lower having *part* in the higher:

For creatures, it is only their *existence* which actualizes—actualizes not their own being, but the being of God, which they participate. Everywhere around us we must see creatures in a state of *potentia* being raised to *actus*: and yet, behind the appearances, the *actus* is already there. [...]

Knowledge is the other key understanding here. Knowing connected things in their very constitution—as a *mean*, Barfield said (1965: 88,89):

Knowledge was an actual union with the represented behind the representation. [...] As a mean between *potentia* and *actus*, [knowledge] was the process of actualization of the soul's potentiality to become what it contemplated, and thus, a stage on its journey back to God.

This sort of connective knowledge was the then ordinary mode of perception of things as *appearances*, as representations. And when this actualization applied to physical things "being raised" the medieval mind thought not only about How? but Where? To the medieval thinkers' views of matrix must be added their idea of the *medium* in which the physical body must subsist. The medium was not *space*, but rather the substance *light*. Knowledge was light; bodies were immersed as in a lake of light; the surfaces were suffused by light; the place became actual

by virtue of light. The significance of this is in the perception that the light was a continuum between earth and heaven.

There is much in the cosmology and theology to suggest that the representation of angels in the church was visual affirmation of spiritual realities "coming down", constituting the medium in which material "reaching up" is actualized. The creation of all things, from celestial worlds and angelic beings downwards, had been by the contraction of light to ever greater densities, which explained the sublunary world of nature comprised of elements of increasing weight and immobility: fire, air, water, earth.⁸ In this view of nature as light compressed and concealed less or more in material, even the most immobile and inanimate things which lack form *in themselves*, receive form *in light*, the medium.

Even as all things are manifest in the light of the sun, so light was the material medium in which the eternal, substantial Light shone, by which copies of the forms were able to appear. In each mode—natural and spiritual—medieval perception was of light one and the same, or scarcely distinguished.⁹ So it is instructive for our appreciation of places made by men and of artifacts situated in time and place to understand the parallel. Grosseteste (*Hexaëmeron* 8.5.3. 1996: 229) described the operation of the natural light of the sun:

The ether that first receives the illumination of the sun is most brightly illuminated, and then passes on the illumination it has received to the pure, subtle upper air, and then to lower and thicker air down here, and last into water.[...] But the whole of the transparent body that reaches from the earth to the sun is illuminated with one illumination, and the whole is one shining body which is made to be of the same form as the shining sun by receiving the illumination from the sun, through the mediation of the ether that receives the first illumination. Take away the ether, and the body next below it would not be made to be of the same form as the sun (i.e. shining), by reception.



Figure 4

The Annunciation, altarpiece, Avignon(?), 1340-45. (Aix-en-Provence, Musée Granet. From Castelnuovo, *Matteo Giovannetti e la cultura mediterranea*, pi. XIV)

While light was regarded as material, Grosseteste also differentiated the *principium* of light and the *firmamentum* of light. The distinction is in the names "heaven" and "firmament" (*Hexaëmeron* 3.12.1. 1996: 112), which he explains: "The first [...] is in virtue of its form [...]; the second names the thing from the ordering it has towards the universe [...]." The ordering of all things under it was expressed in the spanning, enveloping idea in the term "firmament"—it

is the expanse—but it also implied a higher realm above. At some time it acquired associations with the arch or vault of heaven.¹⁰ From this the associations with the over-arching, the vaulting, of the places of the church are obvious. This firmament, 'expanse', stretched forth was portrayed in art and also architecture. Representations of the sun, moon and stars may signify the heavens; angelic hosts, clouds, and rainbows may also indicate the firmament. In the Carolingian period it is shown cogently with certain conventional likenesses where it established the heavenly setting for people and actualized places, intimating deeds of high potential. Later painting and particularly vault frescoes display a consciousness of the firmament of material light endowing a both physical and spiritual vision of *light* (Figure 4). There was an extraordinary perception and new integration of it in the high and late Gothic architecture—*light* as the expansive firmament, the scene of spiritual events.

There is another way in which the perception of light affected Gothic architecture, which we can deduce from scholastic theology¹¹ As we so often may we can extend medieval theological understanding to perceptions of physical things. We have seen that there is a continuum of spiritual and natural light, and Thomas observed (*SCG* 3.64.8. 1975b: 212), "The nearer a thing is to its cause, the more does it participate in its influence." Grosseteste (*Hexaëmeron*, 1.18.1. 1996: 76) found such influence exemplified in the text in Genesis 1.2, "darkness was upon the face of the deep, and the Spirit of God moved over the waters." He expounded it in this way: "By 'the face of the deep' it means to suggest the diaphanousness, that is the transparency, the natural potency which makes the deep able to receive illumination, and show it forth once it has received it." Likewise Thomas reckoned that the spiritual is in that which it illuminates according to its *diaphanousness*.

As to the light, its material does not change nor its role as the actualizing medium, but its operation may, and every thing depends on its operation. So Thomas said (*SCG* 3.65.7. 1975b: 216), "[...] Light does not continue in a diaphanous body when the source of light has gone away.[...] No thing can remain in being if divine operation cease." As to the recipient body, what is crucial is that it be proportioned to the light by being diaphanous (*SCG* 3.53. 1975a: 471): "Thus light does not actualize a body which has nothing in common with the diaphanous." The parallel is drawn with the mind, which is to be amenable to the divine likeness. Such a condition has to be brought about in a body, as in the eye, as in the mind, by an increase in lucidity. Thus (*SCG* 3.53. 1975a: 472):

Nothing can be raised to a higher operation except through its power being strengthened. Now a power may be strengthened in two ways. First by a mere intensifying of its power. [...] Secondly, by the addition of a new form. Thus the power of a diaphanous body is strengthened so that it can give light, through its being made actually lucid by receiving the form of light anew.

Both ways the achievement is illustrated by the competence of the Gothic builders working with light to make the building lucid, a diaphanous body. Thomas does not refer to light in a diaphanous body merely as an illustration or metaphor, but as a real instance in the continuum of natural and spiritual light; and this could be actualized in a church.

The condition of a body being "actually lucid" was brought about by its somehow being diaphanous. There was a related condition namely its *colour*. This does not refer specifically or solely to the surface appearance of the body; and not to hue. As a body is actualized by light it takes on "colour" right to the limit of its capacity; and the very figuration of a body is according to actualizing light. Ramon Llull, in 1308 in *Ars brevis* (10.12. 1993: 340), gives colour this formulation: "Color is a condition contained within a figure."¹² The idea of *containment* was made explicit by John of Salisbury (c.1118-1180) thus (*Metalogicon* 2.20. 1955: 133): "The 'color' of a body is both diffused throughout the whole body, and bounded by the external surfaces of the latter. On the other hand, the body itself extends only as far as its 'color,' neither

going beyond, nor stopping short of the latter." Lull also refers pertinently to *figures* in another formulation (*Ars brevis* 10.12. 1993: 340): "A mirror is a transparent body arranged so as to receive all the figures presented to it." This brings in an efficient idea, that a church could be a coloured body "arranged to receive" figures of higher things, and that if it were transparent, mirror-like it would be able reflect them.



Figure 5
Wrocaw, church of St Dorothy, nave and choir.
Begun 1351. (Photo: J. Lewis)



Figure 6
Metz cathedral, nave clerestory and triforium.
14th C. (Photo: J. Lewis)

It was authenticated by the great church being so translucent that light infused the whole body; the interior light being the internalized glory (Figure 5). We can see how the architects of the great churches strove after a diaphanous building which would receive the light diffused into it (Figure 6). That downward-working power of light, both solar and spiritual, found effect very notably in the fenestration where the material envelope intercepted the light. The building would have this potency for illumination, and a corresponding potency to show forth, to reflect, that light. The perception of light as a continuum started with the source of light, the firmament above, and sought its actualization in amenable *places* built below.

In theological texts there are countless allusions to light; in art and architecture is the all-pervasiveness of light. To us light explained in spiritual or metaphysical terms of medieval theology and science may seem incapable of useful application, and its relation to material buildings strained. Yet if we treat light as simply the illumination of physical space formally moulded and expressed according to modern architectural discourse, we fail to recognize cogent medieval perceptions.

Contracted place: the substantial body in appearance

Such conceptual places become actual and take their nature and identity not only from the light but also from the body, which we have increasingly made reference to. How could it be made diaphanous? Could its colour signify anything? The idea in medieval perception was that if lower things are raised by actualization, the higher things come down by *contraction*. The

firmament overarches the contracted place. The light is in the body by contraction. The light is active, and the body is responsive. This is perhaps how we can think of matter becoming diaphanous and having colour.

It is the pattern of incarnation. It was by contraction that incarnate light assumed or borrowed its colour from the physical, the body. The whole view of the body is raised to the highest theological level: in the pure body the eternal image was generated. We referred to this in late Gothic painting, the *church* being the scene of the Annunciation and the divine ray of light shafting down through a small clerestory window to the ear of the Virgin (Figure 4). The church had the form of the Incarnation.

In Grosseteste's metaphysics light is the generator of form in matter, and because of its powers of multiplication, and diffusion, and contraction, it can "introduce dimension in every direction into matter" (*De luce*. 1955: 133). Light alone possesses this of its very nature. This was the universally and perpetually contracting power of light in matter. The light itself, or some agent that participates in light, which generates form, he calls *corporeity*. On one level form is contracted in that which is material and individual; on a higher level, it is expansive in the spiritual and intelligible: the lower is an adumbration of the higher.

The third dimension added to two-dimensional figures makes bodies—corporeal things which can be "seen with the eyes of the body, in accordance with certain marvelous affinity of natures", said Augustine (*De quantitate animae*, 13.22. 1947: 83). But by the third dimension the body is constituted in another way—again Augustine (4.6: 1947: 65): "I mean the dimension which makes it possible for the interior of a body to be an object of thought [...]." The power of thought is able to give attributes to a body behind the surface where sight is stopped. Of course, pragmatically it uses information from many sources; but the opaque surface will show the viewer only itself—it is an integument that covers the body. In Plato's *Phaedrus* (3.247) even the universe was conceptually bounded, contained by a surface. Ideally, such is the legibility of the contracted place, the affinity between the two-dimensional surface and the firmament is perceptible; and the participation of the three-dimensional body in the corporeity of light is cogent. The appearance given by the makers to the surfaces had the power, we may believe, to so affect perception.

A *place* takes its identity and powers most directly from "the surface" of the adjacent or most proximate part of the surrounding fabric, this comprising a *specific* contraction. Richard Dales (1957: 14), renders Aristotle's definition of place as "the innermost motionless surface of that which contains".¹³ Here the disposition of a place is not related to transitive objects, but to the immanence of a particular referent body. Then it is from the appearance of the surfaces bounding it that the identity of a place is drawn. And while surfaces and integuments cover and conceal the body, their decoration and enrichment indicates its character.

In the detail of Sainte-Chapelle (Figure 7) the window is a quite patent instance of the contraction of light, the superior light of the firmament being altered and particularized, even to the point of transmitting a story, precisely here. The surface of the structural body, strongly sculptured and reduced to mouldings only, is entirely decorated in glowing and shining hues, a reflection wholly congruous with but denser than the transmission of the glass. Here, with all the attention and intention of the sculptural figure, is a consecration cross—the place is exact, contracted.

The ideal form of every thing in nature could be incorporated in the church—as the idea in the mind of the maker, known in spiritual nature but contracted into physical dimensions. Graphically artists could use the entire range of phenomena, natural and artificial, which reflect the form of light, from those most nearly invisible and intangible—clouds, rays of sunlight, the

hues of glass—to such as are palpable, lapidescent. In images of life and fecundity the pleroma of the world and cosmos was compressed in extensive schemes to transform surfaces of walls, columns, vaults (Figure 8). Then there were artifices by which interiors were clothed with rich fabrics, sculptured or painted "linen-fold" hangings, frescoes, and paintings of endless designs. Miniaturized architecture was a form of intensification of place in *loci* and *loca*, articulation of context and content, and contraction by art (Figure 9).



Figure 7
Paris, Sainte-Chapelle, upper church and consecration cross.
Built c.1243-46. (Photo: J. Lewis)

The appropriateness of Biblical imagery of adornment of sacred places was noted by Richard of St-Victor (d.1173), justifying the beauty of earthly appearances as copies of the spiritual model (*Benjamin minor* 15: Zinn 1979: 67):

Read the Apocalypse of John and you will find the adornment of heavenly Jerusalem described in various ways by means of gold and silver, by means of pearls or other kinds of precious gems. In fact we know that none of these things exists there, where nevertheless nothing can be missing altogether. For indeed, no such thing exists there through appearance, where nevertheless everything exists through similitude.

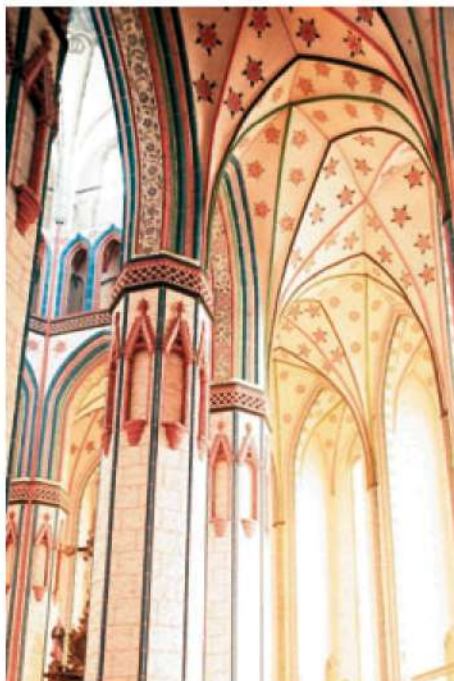


Figure 8
Stargard cathedral, chancel and ambulatory.
Early 1400's. (Photo: J. Lewis)

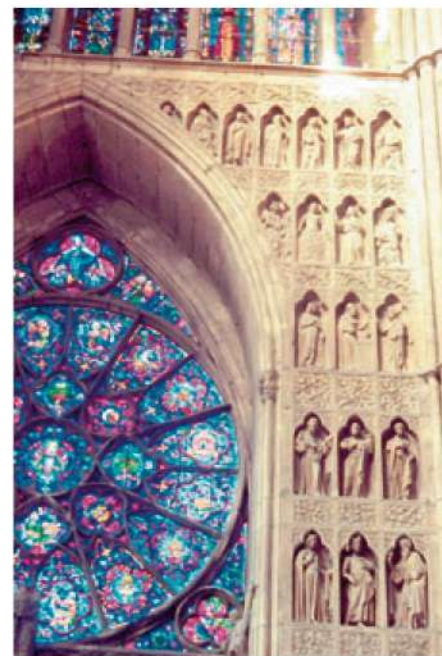


Figure 9
Reims cathedral, interior west end of nave.
c.1255. (Photo: J. Lewis)

In similar vein Abbot Suger (1081-1151) wrote of how King Dagobert had enriched the first church of St-Denis (*De consecratione*, 2. 1979: 87):

[...with] treasures of purest gold and silver and hung on its walls, columns and arches, tapestries woven of gold and richly adorned with a variety of pearls, so that [...] blooming with incomparable luster and adorned with every terrestrial beauty, [it] might shine with inestimable splendour.

Beauty was perceived and located, among other ways, conspicuously in the decoration of surfaces, and adornment of places with various veilings and coverings. This is what we can scarcely recapture. In their makers' eyes, the interiors of many churches in their present bare condition would surely appear unfinished and mute.

Referring back to Grosseteste's metaphysics, we have seen that the church is like the "first body" having form; and matter was constituted in it not only in its denseness but because of matter's twofold potency, "namely its susceptibility to impressions and its receptiveness of them." The term *impression* suggests the common medieval figure of an image stamped on susceptible wax. The substance of the body is constituted by composition. In its reception of the distinct form is the particular composition. The point must be remembered that what can be seen in the body is a copy (exact, so far as possible) of some greater thing. Stargard cathedral (Figure 8) and Reims cathedral (Figure 9) illustrate matter's susceptibility and receptiveness, and composition distinctive in each particular place.

Composed place: the rationale of matrix/medium/body

Pseudo-Dionysius (5th-6thC.) in *The Mystical Theology* (1.3. 1987: 136) with high imagery pictures Moses on Mt Sinai going as high as possible—and limited to seeing the divine dwelling-place:

He pushes ahead to the summit of the divine ascents. And yet he does not meet God himself, but contemplates, not him who is invisible, but rather where he dwells. This means, I presume, that the holiest and highest of the things perceived with the eye of the body or the mind are but the rationale which presupposes all that lies below the Transcendent One.

The highest reach of perception is given in the figure of a *place*; any sort of physical space of course has no point here. This meant to Pseudo-Dionysius and in subsequent medieval theology that to contemplate "where God dwells"—this perception of the holiest and highest—provides the rationale—*is* the rationale—of "all that lies below". Things lie below in the twofold manner of being submissive to the spiritual and subtended by the transcendent. It is like Grosseteste's "susceptibility to impressions and receptiveness of them". At the level of medieval perception of highest things we have considered three premisses concerning *place*, and the working together of these is a *rationale* of place.

Grosseteste's model of the constitution of bodies—form, matter, composition, and the composite—was not only cosmological; it was just as able to be architectural for it was an architecture of the cosmos. We have seen form in-forming the conceptual matrix, matter being the actualizing medium, and composition making the contracted body distinct. The rationale is found in the identity of what is made, where the potential becomes existent: it is the entity itself, the building, the particular place. This is the fourth part, *the composite*. It is not surprising if we see in this constitutional model a parallel to Aristotle's four causes—formal, material, efficient, and final.

What are we told about the spatial scale of the model? It is undefined. The model applies to the whole church as a place, and to any and every part, each a place. The experience of a

user is thus rich and complex, in three dimensions, changing or static; immersed in, affected by, every thing present, by transmitted and reflected light, diaphanous and decorated surfaces, appearances of firmament and integument, and plenitude in nature and painted narrative. On the large scale, the sanctuary at the east end was seen as the head of the body, the illumination and elaboration of which was as the halo of glory and the crown of the church. Hence the chevet was a favoured form of termination in the east—a clear case of the rationale which so completely focussed the place. Contemporary evidence of the medieval perception of the composite is found in Abbot Suger (*De consecratione*, 1. 1979: 83) recording, around 1143, the consecration of the choir of St-Denis:

The admirable power of one unique and supreme reason equalizes by proper composition the disparity between things human and Divine; and what seems mutually to conflict by inferiority of origin and contrariety of nature is conjoined by the single, delightful concordance of one superior, well-tempered harmony.

The work of reason with the power of highest rationale resolves the disparity between higher and lower things—by "proper composition". Thomas Aquinas (*SGC*, 3.69.19. 1975b: 231) showed the thing composed corresponding to the composite: "What is generated in lower things is not merely the form, but the thing composed of matter and form, since every process of generation is from something, namely from matter, and to something, namely form." This touches on the conversion of matter by the agent light, and in the medium of light, to receive the form of light, being diaphanous, as we have seen. Thomas refers to the form which is in the mind of the artificer—and the forms were of actual things.

Beside the process of making a place or thing according to an idea, the place or thing once made then has the power to affect oneself and others. William of St-Thierry (c. 1080-1148) wrote about this to the Carthusian monks of Mont-Dieu (*Epistle*, 1.37. 1976: 61) in relation to the church and cells they were building, stressing the importance of what is around a person, how it is composed, and how it takes shape: "For what is within us is benefited in no slight degree by what is around us, when it is arranged to accord with our minds and in its own way to correspond with the ideals we have set before us." Such arranging and composing of a place requires the exercise of insight and judgement, and William enjoins the monks to each do this. In his *Epistle* he also affirms how the multiplicity of places in the monastery enrich the monks' experience; how the many parts make up and enhance the whole church.



Figure 10

Christ in Session. In the *Bible historiée* of Jean de Papeleu. 1317.
(Bibliothèque de l'Arsenal. From Otto von Simson, *The Gothic Cathedral*, 1962. Pl.1.)

An illustration of Christ in Session, (Figure 10) invites comparison with the form of a cathedral. With the genius of Gothic art for conflating images it reads as an archtypical interior, as if in cross-section, yet registering exterior components to make a unity. The artist's vision was of the *loca* surrounding Christ filled with angels and seraphim. Had he seen their presence just like this in one of the great French cathedrals? The scene is represented as congruous with the structure and places (but hardly space) of the cathedral. It is also a heavenly place, as signified by the cloud motifs, and the medieval mind would readily make the transposition of places in the church on earth to places in the church in heaven. It is formally hierarchical, and Figures 11 and 12 are even more so, reminding us of the importance of hierarchies of place in medieval thinking.

Reviewing the constituents of place, we can see obviously in this illustration (Figure 10) that it represents a strongly conceptualized place and complex of places, no part unoccupied. The architecture suggests the place as matrix, an image of containment and fullness. It also represents actualized place by fusing the earthly and heavenly images. The material church, with ambiguous elements such as the nave/throne and aisle-vaults/clouds-arcs, is infused with the spiritual. There is obviously artistic composition, the subject matter is arranged, and contracted place is illustrated. The rationale of the complex place is conveyed quite coherently, and as a cartoon the composite place is resolved; but the architecture is a diagram and the drawing stays on the page.

The fresco called "The glorification of Wisdom" (Figure 11) is by Andrea di Bonaiuto, and is part of a scheme of entire decoration of the chapter house (now called the Spanish Chapel). Conceptually the fresco is a matrix of images reinforcing the form and place of confraternity. Light and firmament, diaphanousness and "colour", are the material medium by which the place is actualized. The fresco surface is the integument of the building, such decor composing the architecture, the place contracted uniquely *thus*. The composite is the place displaying judgement and rationale in the whole chapter house.



Figure 11
Florence, church of Sta Maria Novella,
Chapter house fresco, 1366-68. (From Joan Evans,
The Flowering of the Middle Ages, 1967,

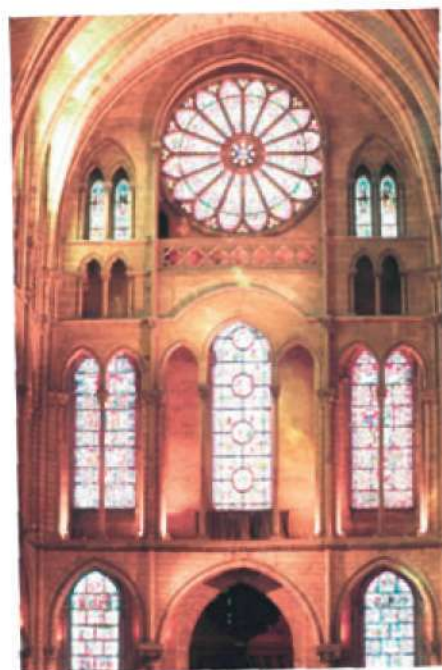


Figure 12
Reims, abbey church of St-Remi.
Interior of west wall. Second half of 12th C.
p.181) (Photo: J. Lewis)

The most significant place, the sanctuary, could be similarly analysed, but over-familiarity with views of Gothic choirs can spoil our perception. The west end of the nave of St-Remi abbey church (Figure 12) may serve better here. How can we appreciate the *conceptual place!* Notions of generatrix and matrix are sanctioned by the given form, especially by the variation and multiplication of the arches, their depth and delicacy, the kinetic and static balance, and the concept is led by the form of the plenum, the plenary, replete place. What is the *actualized place!* It is that in which the potentiality is brought into being, *here*, where it is actuated; the medium, the mean, and means in which and by which it *is*. It is between the lower and the higher, the dense matter and the light of the firmament. In and by light the material is "coloured" and the place is diaphanous. In what sense is it a *contracted place!* The building is three-dimensional, a body, having substance, skin, and surface. Place proximate, connected to it, is defined in relation to it, its mass and covering and adornment. What is the *composed place!* Here is the composite of the other perceptions, the rationale which exceeds the sum by joining physical and spiritual realms. The order, the hierarchies, the logic, constitute the rationale of the place. The place participates in it, is immersed in it, is instructed in it.

Medieval architecture could only be understood in its artifacts; this, arguably, was the view then, and it cautions us against applying modern theories of aesthetics and design—including those of architectural and visual space. I believe the buildings must speak for themselves, but we can no longer see many, if any, of them as they originally were; nor do we understand well their language. Reinforcing the view that the buildings themselves were their books on architecture is the fact that there are no systematic treatises. Therefore with some difficulty and great care we seek to deduce from often tangential texts, and from generally compromised buildings, attributes which may have been perceived to be of greatest importance.

Notes

- 1 Von Meiss (1990: 101) refers to the many aspects of spatial awareness, for instance: "The resulting over-all idea is not the objective fact of space as it is, but space experienced, passed through the subjective filter of perception conditioned by our previous experiences, our language and our culture." He also deals with place (1990: 135): "We start to go beyond the essentially visual approach to architecture in order to probe into existential concepts." And (1990: 137), "[We ask] ourselves about their purpose. Architectural form must therefore refer to 'the idea of place' and not only to aesthetic principles [...]." Yet these ideas have a different range and focus from medieval perceptions.
- 2 Refer Westfall in van Pelt, Robert J., and Westfall, Carroll W 1993. *Architectural Principles in the Age of Historicism*. New Haven: Yale University Press, pp.284-88, for a useful but less than satisfactory account.
- 3 The term participation was common in medieval philosophy and theology. See Barfield (1965: 89, 90): "It is not a technical term of philosophy and [Thomas Aquinas] is no more concerned to define it than a modern philosopher would be, to define some such common tool of his thought as, say, the word *compare*."
- 4 These four 'constituents' are quite parallel to Aristotle's four causes: formal, material, efficient, and final.
- 5 See Barfield (1965), especially p.88.
- 6 An apposite explanation of a corresponding mode of perception, with reference also to Plato's "receptacle", is given by Bert Olivier in *Dada* and the ethical need for revolt in art. *SAJAH* 21.2 (2006) 89-100. See pp.91, 92.
- 7 See Galatians 4.26: "Jerusalem which is above is free, which is the mother of us all."
- 8 See, for instance, Hugh of St-Victor, *Didascalicon*, 1.6; Grosseteste, *De luce*; Bonaventure, *Sententiae*, II. 13.2.
- 9 Thus see Augustine, *De civitate Dei*, 11.10. In *City of God*, trans, by Henry Bettenson, Harmondsworth: Penguin, 1972, p.442: [It is] quite appropriate to speak of the illumination of the immaterial soul by the immaterial light of the simple Wisdom of God, in terms of the illumination of the material atmosphere by the material light."
- 10 For instance, Augustine, *Confessiones*, 2.2.

- 11 The subject deserves full exegesis in which it might be argued without dependence upon a neo-platonic metaphysics of light.
- 12 This follows medieval understanding traceable to Aristotle's definition of colour as, "the extremity of the transparent in a terminated [boundaried] body," which Bonaventure used in *Liber de sensu et sensibus*, 3: "Color est extremitas perspicui in corpore terminato."
- 13 Compare the rendering by William Wallace in commenting on Thomas Aquinas' *Cosmogony*. See section 1 above.

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