Space, Time & Van der Laan

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Blessed are they that dwell in thy house:
they will be still praising thee.

Psalm 84:4, King James Version
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Preface

Thus spoke Perec on the difficulty of imagining an ideal city: ‘I wouldn't like to live in a monastery but sometimes I would.’ So it was that I found myself shading under the portico of the entrance to the Abdij St. Benedictusberg, Vaals on the 24th August 2007, hoping that when the porter answered the door, there would be a guest cell available for me to spend the night in.

The architect responsible for the design of the building had also been a resident Benedictine monk in that monastic community until his death in 1991. I had first encountered the work of Dom Hans Van Der Laan some ten years previous to my unannounced arrival at his monastery, whilst in my first year of architecture, studying under the tutelage of Richard Padovan and Terry Robson at the University of Bath. Padovan had been responsible for introducing Van der Laan to an English-speaking audience with his translations of the latter’s De Architectonische Ruimte (tr. Architectonic Space 1983) and his own monograph, Dom Hans Van Der Laan: Modern Primitive (1994) and the earlier essay, Dom Hans Van Der Laan; Architecture And The Necessity Of Limits (1989). At that time, Padovan was finishing Proportion: Science, Philosophy, Architecture (1999) and his translation of Het Vormenspel der Liturgie (tr. The Play of Forms; Nature, Culture, Liturgy 1985) would not be published until 2005.

In any case, the opportunity had presented itself to experience the work of the architect-monk first-hand, and eventually, after twenty minutes or so of waiting, the door was opened and I was led into the building. Since the porter spoke no English and I no Dutch, I followed his beckoning through the dark entrance, out again into the external, double-height, and colonnaded atrium and up the slow steps, turning at the top towards a great, timber door. The hinges creaked under the weight of the door opening and my senses were overcome by the visceral character of the space of the church inside and the nature of the events unfolding therein. I had inadvertently arrived during the High Mass. As I took my seat on a pew at the rear of the nave, the sweet reek of the incense singed my nostrils and shafts of brilliantly-angled, clerestory light penetrated its haze. The hard, slurried-brick surfaces reverberated with the antiphony of the choirs’ Latin chants. I looked on as this strange and solemn theatre
of unfamiliar rites and gestures played out before me.

Following the dismissal from the church, the Abbot introduced me to another visitor; a septuagenarian monk named Wim Johannesma (Brother William) who spoke good English and was at leisure to provide me with a thorough tour of the building and its grounds. Happily Wim had not taken vows of silence and so we were able to talk over the next few days. It transpired that he had been visiting from Brussels where he is a member of the Order of the Brothers of Jerusalem, but had been a friend of Van der Laan for thirty years up until his death and considered the monastery as a second home. In addition to furnishing me with fascinating anecdotes and insights about his times with Van der Laan, Wim was also able to provide some answers to my questions relating to the liturgy and with him I was permitted access to those parts of the monastery otherwise denied to visitors.

Since returning to Glasgow from that serendipitous meeting at Vaals, a correspondence has been maintained with Brother William. Eventually, in November 2009, I went to visit him in Brussels, whence two more of Van der Laan’s buildings were easily reached: the lesser known convent, Moederklooster Mariazusters van Fransiscus at Waasmunster and the conventual retreat with its octagonal chapel in nearby Roosenberg. At least to my mind, neither of these buildings had quite the same intangible, primordial presence that imbued the Benedictine monastery. Thereafter, Wim and I returned to Vaals together, where we stayed for three days in order that I might carry out the study and research that constitute the basis of this paper – an investigation into the overlaying of sacred-and-profane space-and-time manifest in Dom. Hans van der Laan’s masterwork, Abdij St. Benedictusberg.

I returned to Vaals again in November 2010 in order to finalise my research, access the Van der Laan archive and to make the photographic plates presented at the rear of this volume.
Sacred Space and Time:
Theological Premise and Paradox

Space and time are the cosmic coordinates through which all humanity experiences the world. The ‘here’ and ‘now’ of historical time provides a human comprehension and meaning to the vast, spatio-temporal continuum. Thus place affords human pertinence to space, as does duration to time. Moreover, for the believer (amongst whom Van der Laan must obviously be counted as an ordained Benedictine priest), liturgical space and time achieve their ultimate significance by their being sanctified and thus mark a break from the profane space and time that they interrupt. A grasp of this notion is key to a fuller insight into the liturgical rhythms rehearsed daily at the Abdij St Benedictusberg, and necessitates an understanding of two further essential concepts: the theological premise for a sanctified spatio-temporal existence, and the paradox that this represents.

The mystery of the incarnation is the theological crux upon which the sanctification of Christian time and space hinges. In this act, God enters cosmic time and space, and furthermore dwells amidst human history.¹ For this reason time and space are engendered with a holy and sacred status: ‘In the person of Christ, God lived and accomplished human salvation in time and space. In Christianity time and space are the stage where God and humankind meet each other.’²

That the historicity of Jesus is affirmed in the Gospels of the Bible represents a significant departure from pre-Christian beliefs in regard to liturgical time. The celebrated religious historian, Mircea Eliade (1957), asserts that because Christian liturgy occurs in sanctified historical time, it differs radically from those religions whose sacred time exists only in a mythical time;

That is, a primordial time, not to be found in the historical past, an original time, in the sense that it came into existence all at once, that it was not preceded by another time, because no time could exist before the appearance of the reality narrated in the myth.³

Therefore, without the function of the incarnation it would be impossible to conceive of a
sanctified, historical time:

Since God was incarnated, that is, since he took on a historically conditioned human existence, history acquires the possibility of being sanctified. The *illus tempus* evoked by the Gospels is a clearly defined historical time – the time in which Pontius Pilate was governor of Judaea – but it was sanctified by the presence of Christ. When a Christian of our day participates in liturgical time, he recovers the *illud tempus* in which Christ lived, suffered, and rose again – but it is no longer a mythical time, it is the time when Pontius Pilate governed Judaea. For the Christian, too, the sacred calendar indefinitely rehearses the same events of the existence of Christ – but those events took place in history; they are no longer facts that happened at the origin of time, ‘in the beginning.’ (But we should add that, for the Christian, time begins anew with the birth of Christ, for the Incarnation establishes a new situation of man in the cosmos). This is as much to say that history reveals itself to be a new dimension of the presence of God in the world.4

The Christian liturgy celebrates the incarnation embodied in Christ’s life and mission from his birth, his teachings and miracles to his death and resurrection, his ascension and the sending of his Spirit. The Christian place of worship is at once the backdrop for these sacred feasts, but it is also a sanctuary5 serving to remind the believer that God has made them his place of dwelling.6 Just as liturgical time concerns the events of Christ’s life, so too, according to Anscar Chupungo (2000), does the theology of the liturgical space of the church pertain to those places visited by Christ; the houses, the hills, the lakesides, and in particular to the room where he ate his final meal and the tomb where he lay before the resurrection, although Van der Laan would perhaps dispute this.7 For the believer, the place of worship is a sacred place as distinct from the profane space of the surrounding environment as the liturgical service is distinct from the profane time that it punctuates.

It is no longer today’s historical time that is present – the time that is experienced, for example, in the adjacent streets – but the time in which the historical existence of Jesus Christ occurred, the time sanctified by his preaching, his passion, death and resurrection.8

Having yoked the concept of spatio-temporal sanctification to its theological premise, it is important to underscore its paradoxical nature. That is to say, for an object or space to
become sacred object, sacred space, or indeed for a set duration to become sacred time, their essence must be transubstantiated. And yet their formal character remains the same. The altar is set apart as a sacred object, the place of remembrance of the supper and of the sacrifice of Christ the Saviour. Indeed, Van der Laan considers that the altar ‘must be regarded as a pure monument, a symbol of an invisible reality, a sort of label for the space.’ However, the altar simultaneously remains a tangible, tectonic assemblage of stone.

So the ordinary things become signs, but they retain their normal appearance. They are still real houses, real garments and real utensils. The actions and movements employed in liturgy are the normal ones, and the ordinary monumental forms of communication are used: language, gesture, symbol. But all these take on a wholly new significance, because they now serve for communication with God.

It is with this particular, seemingly paradoxical overlaying of sacred space-time and profane space-time that we will be concerned with. With that in mind, the written and built work of Van der Laan will be considered throughout this paper. Specifically, we will evaluate how Van der Laan’s theories of architecture and of the liturgy combine with their manifestation in the single space of the church building (*basilica superiore*) at St Benedictusberg. How does the architect-monk choreograph the relation between the sacred and the profane, both in space and in time?

We must tread carefully when considering together the distinct realms of architecture and the liturgy. Van der Laan, himself, was at lengths to underline the negativity of an architecture made over to empty symbolism:

It is quite wrong to establish a casual relationship between symbolism and architectural design: they are independent spheres. For example, we place twelve columns in a church because of the advantage this number has from an architectural viewpoint. But to say that we make twelve columns because there are twelve apostles is a poetic license that has nothing to do with architecture.

Furthermore, Van der Laan seemingly desires to distance his architectural thoughts and theory
from a theological position. Perhaps this is an understandable stance from a religious man who didn't want his architectural work dismissed unduly by a secular, architectural fraternity:

The only religious thought, if you can call it that - you will find in my work,' Van der Laan declared, 'is the distinction I draw between things we make and the created things of nature, and the fact that I see in the relation between these two sorts of things, art and nature, a manifestation of the relation between creator and creation, for the things we make stand to our created intelligence as the things of nature to the creating intelligence.\textsuperscript{13}

However, as a sacristician, ordained priest, and moreover a Benedictine monk who had devoted his life to God's calling and was immersed in His work, Van der Laan's theological principles must have informed his architectural beliefs. Indeed, a closer reading of the above quotation belies a fundamental theology to Van der Laan's architecture. He has situated man within Creation and the architect-creator cast in \textit{imitatio Dei}.\textsuperscript{14}

Most of what has been written about Van der Laan has concentrated mainly on his proportion system, his architectural theory and his built work. This paper will attempt to redress this balance by studying how his architecture theory and his understanding of the liturgy are interlinked. The case will be made that not only was his architectural theory informed by his theology and vice versa, but that architecture (as part of the cultural realm) fitted into Van der Laan's overarching study of nature, culture and the liturgy.

Therefore, a study of his universal theory comprises the first chapter in this paper. This is followed by a summation of his architectural theory in the second chapter with particular reference to its application at St Benedictusberg. The following chapter is an outline of the Liturgy of the Hours as observed at Vaals; the analogous relationship of the Liturgy of the Hours to architecture (in time); and as such, the similitude between this construct and Van der Laan's architecture. The penultimate chapter draws on all the preceding to focus on the singularity of the sacred space-time in the church at Vaals during the liturgical office, demonstrating the unique manifestation of Van der Laan's architectural and theological theories. The concluding chapter draws parallels between Van der Laan's work and his life as an architect-monk.
The words 'ima summis' are imprinted rather enigmatically at the top, right-hand corner on the first page of the first chapter in *The Play of Forms*. It is, in fact, a re-emergence of the very phrase that Van der Laan had employed some six decades prior to that book’s publication. The story goes that, during his novitiate at St Paul’s Abbey in Oosterhout in the 1920s, he and his fellow novices were asked to select for each of themselves a maxim by which to live their lives.¹ Finding himself perturbed by the vainglorious piousness of his confrères’ medley of Biblical quotations and doctrinal dicta, Van der Laan decided upon the apparently cryptic *ima summis* for his motto. In fact, as Kees Den Biesen points out in his preface, its explanation is straightforward enough: *ima summis* means ‘from the lowest to the highest.’ Van der Laan had borrowed the term from the Gregorian chant *Alleluia Virga Jesse*:

\[
\begin{align*}
\text{Alleluia.} & \quad \text{Halleluiah.} \\
\text{Virga Jesse floruit:} & \quad \text{The rod of Jesse hath blossomed:} \\
\text{Virgo Deum et hominem genuit:} & \quad \text{A Virgin hath brought forth God and man:} \\
\text{Pacem Deus reddidit,} & \quad \text{God hath restored peace,} \\
\text{In se reconcilians ima summis.} & \quad \text{Reconciling in Himself the lowest with the highest.} \\
\text{Alleluia.} & \quad \text{Halleluiah.}^2
\end{align*}
\]

This is the celebration of the birth of the Christ in whom God reconciles the *ima* with the *summa*. The soteriological function of the incarnation means that the profane is reconciled
with the sacred; humankind is reconciled with the Divine; the lowest is reconciled with the highest. *Ima summis* - from the lowest to the highest. Rather than merely providing a slogan for the satisfaction of his novice master, nor just an inscription on a page, the phrase *ima summis* was etched into Van der Laan’s very being, and his life was charged with its meaning.

For Van der Laan, [*ima summis*] expressed an ascending movement of reconciliation that gave meaning to the whole of human life. This concept was his key to reality.3

That *ima summis* permeated Van der Laan’s life extends to the pair of books that he wrote, and indeed their coupling. In his first book, *Architectonic Space*, Van der Laan exclusively expounds his own theory of architecture and its fundamental necessity within nature, whereas *The Play of Forms* deals with notion that the liturgy is the pinnacle of all human expression pronounced from and above cultural endeavour: Thus, together these volumes comprise the upward journey from the lowest to the highest. Both texts are written in a manner that emanates a timeless quality; both literally assume the form of lessons. Indeed, Padovan likens them to ‘forgotten tablets or scrolls in the desert,’4 and there is certainly a quasi-scriptural simplicity in the written style of these works.

Both books set forth from essential and primordial concepts. *Architectonic Space* embarks from the principle that mankind needs to build for himself a dwelling in order to ‘maintain his existence in nature.’5 In *The Play of Forms*, Van der Laan is concerned from the outset with man’s place in the natural world or, more precisely, man’s position within creation. Van der Laan asserts the ascent of creation as described in the book of *Genesis* chapter 1, and that not only does our intellect set us apart from all other creation, but that the human being is Creation’s culminating masterpiece.

Van der Laan recalls St Augustine’s adage that ‘we share being with the stones, life with the plants, feeling with the animals and knowing with the angels,’6 as he leads the reader through the Creation story. Van der Laan underscores those characteristics that we share in common and those characteristics that we supersede for each stage from the lowest to the highest of creation: like the stones, our mass is subject to the laws of gravity; like the plants we are
alive; like the animals we are able to move freely. We have those properties in common with the visibilia, and we have spirit in common with the invisibilia. However, it is our cognitive and imaginative faculties that stand us apart and above all other material creation - ‘The animals,’ claims Van der Laan, ‘cannot free themselves from the cycle of nature into which they are absorbed. They are bound by their instinct and their lack of an independent will to become faultless links in the natural chain.’

Thus, Van der Laan situates humankind above all creation, and below the creator God. We are the peak of the visibilia, visible creation, sharing spirit with the invisibilia, and therefore, to Van der Laan’s mind, humankind marks the midpoint between the Creator and His creation:

Formed in God’s image and likeness, we are an image of God with respect to the rest of creation. With respect to God, on the other hand, we form a condensed image of the whole creation.

It is this likeness to God that not only creates the distinction between humanity and the remainder of creation but furthermore enables the possibility (rather than the inevitability) for the mystery of the incarnation. Nevertheless, because of and despite our crowning place at the apex of creation, we are wholly dependent on nature and in particular our intellect’s ability to select and utilise nature’s resources to sustain our existence within it. In contrast with other living creatures, we are neither naturally equipped with food, raiment nor shelter. Van der Laan eloquently illustrates how we mediate our natural environment in his first lesson of Architectonic Space, wherein he describes the purpose of the sandal:

The ground being too hard for our bare feet we make ourselves sandals of softer material than the ground, but tougher than our feet. Were they as hard as the ground or as soft as our feet they would give us no advantage, but being just hard enough to stand up to wear and yet just soft enough to be comfortable, they bring about a harmony between our tender feet and the rough ground.

Since we rely on our ability to harness nature’s yield for three categories of sustenance, it follows that there are three corresponding categories of artefacts: utensils, clothing and
buildings. Furthermore, it is on the foundation of these same categories that culture is physically shaped. Thus, these three categories of cultural artefacts ‘have their origins in the natural necessities of our bodily existence.’

Of course, there are forms of cultural expression other than artefacts, and Van der Laan classifies these as sounds and movements. Due to our imaginative and expressive capabilities, Van der Laan infers that rather than merely being able to move unconstrained through time and space (like the animals) we are able to fabricate our own space and time in our minds. He cites the demarcated spaces of architecture and musical duration as exemplars. Of course, what Van der Laan is concerned with here is different forms of communication: things, movements and sounds. According to Van der Laan, our position in the cosmic order (above all else in creation, on the same level as other human beings, but below God) dictates that there are necessarily three realms of communication:

In nature we communicate with purely material creatures; in culture with our fellow humans; and in liturgy with God.

These, then, are Van der Laan’s three form-worlds: nature, culture and liturgy. It is his assertion that liturgical forms are as distinct from cultural forms as the latter are from natural forms. By Van der Laan’s reasoning, each successive form-world completes the preceding:

Cultural forms crown the natural ones, as it were, and spread over them the light of the intellect. Liturgical forms in turn crown the whole composed of culture and nature, and spread over it the light of faith.

Thus, cultural forms are honed from a fraction of natural forms, and similarly, liturgical forms are derived from and elevated above cultural forms. In Van der Laan’s opinion, liturgical forms concede their cultural significance by virtue of their resignification according to their novated purpose. That is to say, since the communicative function of the liturgical form is no longer amongst humankind but between man and God, it is Van der Laan’s strongly conveyed conviction that, ‘the liturgical order is no less radically distinct from the cultural one, than is
the latter from the order of nature.'19

Let us enumerate once more Van der Laan’s three form-worlds: natural forms are those in which man is enmeshed as a material being; cultural forms are those in which humanity’s intellectual existence is engaged; and liturgical forms in which the believer participates spiritually in the communion with God. *Ima summis*, from the lowest to the highest - from the material, via the intellectual, to the spiritual. Just as natural forms comprise things, movements, and sounds, so too may liturgical forms or *signa sensibilia* be subdivided into the following: significant objects, conscious gestures and considered words.

Those *signa sensibilia* that are space-occupying things correspond to the three categories of cultural artefacts. Essentially, other than their function, liturgical forms are no different than cultural forms.20 Thus, the liturgical altar vessels, vestments, and church building correlate to and are derived from the utensils, clothing, and buildings of the cultural form-world. Just as the concrete forms of nature provide a fixed backdrop for the animate forms, these liturgical artefacts are the fixed platform for the other liturgical forms.21

Van der Laan’s next categorisation involves movement. These *signa sensibilia* are the postures, gestures, and prescribed dispositions and displacements of the body in space. Since these actions also have duration, they are bound to time as well as space. For Van der Laan, these are arborescent forms in the sense that although animate, they remain rooted to the fabric of concrete forms.22

The final class of *signa sensibilia* belongs to time only.23 These are the carefully selected words, songs and music of the liturgy, analogous to the sounds of nature.

Van der Laan makes clear that the virtue of the first category of the *signa sensibilia* (space-occupying forms) is their inherent exteriority to our individual existence. For this reason, not only do they perpetuate but they are enabled to address the congregated impartially. It is also for this innate quality that these forms are inept at communicating personal thought. Van der Laan opines that movements and gestures are more capable of this, but that due to their
impermanence, unrelenting repetition is required for them to form an enduring testimony. However, personal thoughts are best expressed as sounds, in the form of language - the most fully-developed communicative system of signs, and ‘The most flexible instrument for mutual understanding.’ It is this versatility of communication, conjoined with the permanence of the external, physical object that create the utmost monument:

Because the word, the basis of language, is produced only in time and not in space, it has a very transitory existence. However, human ingenuity has discovered how to combine the universality and permanent character of material symbols with the flexible expression of the word. It has managed to break down the words of a language into vowels and consonants, and to capture them as material signs in the forms of letters. The written word is therefore the ultimate monument, the most important monumental form of a society. Its two manifestations are the monumental inscription and the book.

Whatever their manifestation, liturgical forms are ultimately derived from the natural form-world, cultured and then further refined:

Liturical forms are ultimately based, therefore on the forms of nature: things, sounds and movements. But before these are absorbed into the liturgy they have undergone transformation by human culture.

The liturgy, then, is that great monument in time and space; a physical memorial and temporal reenactment; a commemoration in remembrance and worship. Therein lies the reciprocal relationship with the concept of sacred spatio-temporal heterogeneity: by the mystery of the incarnation, space and time are thereby consecrated, and it is in this sanctified space and time that the liturgy is celebrated.

The liturgy, as distinct form ordinary space and time, is the terrestrial practice for everlasting, heavenly life:

Liturgy is as it were a celestial undertaking that is played out here on earth... The world that we call liturgy is played out between these two poles: created matter and uncreated spirit.
Measure to the Measureless

It was in the wake of the Catechism of the Council of Trent, and in particular the self-confidence inspired thereby in the ensuing years, that the Catholic Church bestirred itself and cast aside the self-abnegating sobriety of the nascent period of the Counter-Reformation. The Papal Church returned its sights on the mysteries of the eternal truths and with reinvigorated zeal and piety, set about its task of glorifying the infinite power, majesty and divinity of God. With an enthusiasm unprecedented since the Middle Ages, the Church launched into a programme of representing these celestial mysteries in the architecture of the churches it built. Put another way, it sought to embody sacred truths in material form. It was the architects of the Roman Baroque that first adopted this challenge in a fashion befitting the task. Both Gianlorenzo Bernini (1598-1680) and Francesco Borromini (1599-1667), each in their own divergent manner possessed the “baroque will to master the illimitable,” and created architectures of ebullient flamboyance and splendour. Be it Borromini, the progenitor of the undulating, curvaceous wall, or Bernini, the master-scenographer; be it San Carlo alle Quattro Fontane (1637-1641) or San Andrea al Quirinale (1658-70), the desire was to give expression to the immeasurable. Sir Banister Fletcher makes clear the contrast between the inferred restriction of the predominantly straight lines articulated in Renaissance architecture and the emancipation of those same lines in the Baroque style. Indeed, it was the plastic manipulation of Renaissance elements that characterised Baroque architecture, creating dynamic forms and vivacious spatial effects. Its architecture collaboratively utilised all of the arts, tricks of light, and tricks of perspective to conjure dramatic sequences and a triumphant
assertion of the supernal mysteries - to the extent that Pascal would proclaim; 'the eternal silence of these infinite spaces terrifies me.' Thus, and in these relatively small churches, a sense of infiniteness was invoked by the Baroque architects.

Despite appearances, the comparison with Baroque architecture is apposite to the discussion of Van der Laan’s choreography of sacred space and time at the Abdij St Benedictusberg because our twentieth-century, architect-monk was similarly concerned with the idea of the infinite, particularly in regard to the role that architecture has to play. The parallel may also be extended to the scale of the Abbey church at Vaals. Indeed, the church building there is in more affinity with the domestic than the cathedral. Furthermore, as will be demonstrated in the penultimate chapter, Van der Laan assumed the role of scenographer at Vaals, but in contrast to the multifarious approach of the Baroque architects, the theatre of Van der Laan’s building is obtained by purely architectonic means only. However, whilst the Baroque architects were devoted to giving expression to the immeasurable, Van der Laan believed that rather than representing the infinite, it was architecture’s great commission to quantify the apparently fathomless:

Architecture … has the power to give measure to the measureless space of nature, which thus becomes knowable for us…

Whilst it is beyond the scope of this piece to provide a thorough exposition of the architectural theories of Van der Laan, we must nevertheless consider a summation of the salient points outlined, primarily in his architectural treatise, Architectonic Space, in order fruitfully to discuss the sacred and profane space-time at Vaals. Although preceding The Play of Forms in terms of its authorship, Architectonic Space may retrospectively be considered as an exegesis of a specific category (namely architecture) within the former, overarching theory. As explicated in the previous chapter, and within this all-encompassing theory of nature, culture and liturgy, architecture takes its place within the cultural form-world, but it was architecture that was Van der Laan’s specialism and it is on this subject that he would most illumine.

His treatise was developed over time in the seclusion of the monastery. It is perhaps no
coincidence that his theory should gestate in this relative vacuum—(a vacuum at least in terms of contemporaneous, architectural discourse): indeed, his becoming a monk might be regarded as providing a necessary cultural hiatus, conferring upon him the critical distance that enabled him to contemplate architecture with a renewed and revitalised perspective. Of course, it was only a relative vacuum, and Van der Laan’s theory was developed in part by the maturation of thoughts that evolved from his giving a series of talks on ecclesiastic architecture, hosted by the Bossche School. Nor should the significance of the precise monastic Order to which Van der Laan belonged be understated; St Benedict’s Rule insists upon moderation in everything; insists upon this above all else; and insists upon this more emphatically than other Orders.

As we shall duly see, the architectural treatise of Van der Laan is underpinned by this discernibly Benedictine temperance to seek moderation in all things—‘Not too little, not too big; not too long and not too broad; not too thin and not too thick; not too open and not too closed; not too dark and not too light,’ he would observe when asked to say a few words about his guiding principles upon the completion of the building at Vaals. This aspiration towards moderation would materialize in a theory that would give pre-eminence to architecture’s necessity for limits, (to appropriate the phrase from Padovan’s eponymous essay).

In Architectonic Space, Van der Laan ventures to afford a comprehensive architectural theorem governing the smallest architectural element to the entire city. His is a logical, progressional methodology that expounds dyadic and triadic oppositions. From the outset of this treatise, Van der Laan establishes the primordial necessity that humanity has for architecture to mediate the natural environment. He perceives a great conflict between the primary dyad art-nature that he believed must be resolved by architecture. To explain this notion, he returns to the example in reference of the sandal:

Just as the sandal conciliates between the hardness of the ground and the softness of our feet, so too does the house provide humankind with a habitable piece of space. The house is an addition to nature just as the sandal is an addition to the body: both serve to maintain humanity’s existence in the natural environment.
For Van der Laan, the provision of habitable space extends beyond the basic notion of environmental comfort. It is just as important to establish limits within the limitless space of nature, as it is to provide shelter from the elements: the former satisfying the needs of the intellect; the latter the needs of the body.\textsuperscript{16} Van der Laan perceives a conflict between the infinity of nature and the human need for a limited piece of space within it: there is also conflict between what Van der Laan distinguishes as the vertically-oriented, infinite space of nature and the horizontally-oriented, limited space of human experience. By ascribing verticality to the limitless space of nature, Van der Laan refers to the axis from the earth to the sky; the horizontality of human experience refers to that which is bounded by our vision and our movement, what Van der Laan terms experience-space.\textsuperscript{17} It is out of the desire for a reconciliation of these concerns that architecture necessarily emerges:

Architecture is born of this original discrepancy between the two spaces - the horizontally oriented space of our experience and the vertically oriented space of nature; it begins when we add vertical walls to the horizontal surface of the earth.

Through architecture a piece of natural space is as it were set on its side so as to correspond to our experience-space. In this new space we live not so much against the earth as against the walls; our space lies not upon the earth but between walls.

This space brings a completion to natural space that allows it to be brought into relation with our experience-space; at the same time it allows our specifically human space to be assimilated into the homogenous order of nature.\textsuperscript{18}

Van der Laan tasks architecture to resolve these disparities and, ultimately, that is the endeavour of his treatise. It is architecture’s purpose to mediate these conflicts spatially, perceptibly and intellectually. Firstly, architecture must provide a delimited piece of architectonic space within the limitless space of nature that corresponds to experience-space. The physical experience of space, then, necessitates that this space must be delimited in relation to our bodies. This, in turn, originates from the demarcation of space between solid walls, whose forms are perceptible to our being. The visibility of these forms is subsequently attributable to the delimitation provided by their adjoining edges. By the lengths of these edges, it is finally now
possible to measure their sizes, and consequently those of mass and space. Therefore, we may mentally appraise size, and thereby intellectually engage with space.\textsuperscript{19}

Experience-space is therefore now contained within an artificial, delimited similitude of natural space, that which we call the inside. Thus, in its creation, a new opposition is formed: inside-outside. This dyad is restated by secondary self-images - progressive interiority within the \textit{inside} itself. The limitless space of nature is the ultimate outside but within Van der Laan’s conception of ‘inside’ he proposes three gradations of space. The \textit{cell} is the ultimate inside; that which is required for personal privacy. The \textit{court} is an outside to the cell; this is the space of walking. On the other hand, the court is an inside to the larger \textit{domain}; the field of vision, which is still an inside to the space of nature. In a house,\textsuperscript{20} (and as we shall recognize in the monastery at Vaals), there are obviously numerous cells, and there are also derivatives of cells: the gallery; the hall; the atrium. These are larger than cells (in fact, extrusions, multiples, etc.) but not yet classified as court.\textsuperscript{21}

The clear distinction between natural outside and architectonic inside is of fundamental significance to Van der Laan’s theory. It was his firm conviction that the dissipation of this boundary, prevalent in much Modernist architecture, was corrosive to the nature of architectonic space.\textsuperscript{22} This crucial polarity between inside-outside, itself an image of the primary dyad art-nature, is further imaged within architecture itself: the opposition of the solid walls against the architectonic inside; solid-void.

In this new dyad, Van der Laan encounters a paradox in the logic, thus creating a new conflict; a conflict which, he would insist, must be resolved by architectonic means. The obstacle for him is that, as already outlined, solid volumes are defined by the limits of their surfaces, but that if we apply the same logical means to delineate spatial volumes, it can only be by appropriating those same surfaces from the solid volumes, thus dispossessing the solid volume of its form. This is analogous to the familiar figure-ground optical illusion that portrays the pair of faces or the vase, which can never be perceived simultaneously. Leaving aside the paradoxical, geometric implication inherent to his solution, Van der Laan proposes an architectonic solution that rather than being bound by surface, architectonic space must
instead be delineated between solid, three-dimensional, and essentially autonomous forms.\(^{23}\)

Space is thus limited by the entire three-dimensionality of the walls that bound it, whereas the walls themselves are bounded by their own limiting surfaces. Van der Laan elucidates on this architectonic panacea by developing the notion of what he terms *mutual-neighbourhood*. If we are close enough to a large enough object (a boulder for example or a wall)\(^{24}\) we can be said to be in its neighbourhood. In a similar manner, two objects may be considered to be in each other’s mutual-neighbourhood, on the condition of their size being great enough for their vicinity. The proximity required is dependent on the objects’ size and this is a proportional relationship as Van der Laan asserts; ‘hence we could say that two large stones are closer together than two small ones, although the distance is the same in both cases.’\(^{25}\) The notion of mutual-neighbourhood brings about, and indeed constitutes perceptible space. This is what Van der Laan refers to when he states that architectonic space first arises between two vertical walls.\(^{26}\) It follows that the larger the walls, the more intense the neighbourhood, the more dense the architectonic space.

Van der Laan accredits the strength of the neighbourhood to be governed by the ratio of the thickness of the walls to their distance apart. For him, this ratio is, in fact, one of the dimensions of architectonic space, and it is his conviction that this ratio should be 1:7.\(^{27}\) This accounts for the markedly thick walls that immediately confront us in his buildings, and St Benedictusberg is no exception. According to his theory, the other dimensions of architectonic space are the length and height of the wall, which together constitute the spread of the neighbourhood. Architectonic space is thereby considered as the product of the strength of the neighbourhood by the spread of the neighbourhood.\(^{28}\)

Just as inside-outside was imaged by solid-void, so too is this dyad further imaged within the wall itself by its solid and void parts. It is revealing to examine what the purposes of openings in the wall are according to Van der Laan’s theory: the pragmatic reasons are superseded by the formal ones. That is to say, for Van der Laan at least, the admittance of light, air; people etc. is of secondary importance to the functions of opening that afford intellectual engagement with the space. These purely formal motives are twofold: firstly, to reveal the thickness of the
walls, thereby revealing the ratio of wall-thickness to their distance apart, and consequently their mutual neighbourhood and its architectonic space; and secondly, to express the walls in segments, thereby enabling their intellectual appraisal - it can now be measured by its parts.29

It is therefore not enough that the measures of the house conform to our insight, its forms to our perception and its spaces to our experience; the function of the house is only complete when the entire architectonic space from cell to domain comes under the influence of the architectonic form of the mass, and when both space and form are subjected to the architectonic ordering of quantity. 30

The mass of the wall, in turn, has a double role. Apart from separating inside and outside (and in doing so, playing an active part in the world of experience and perception) it is, at the same time, the material through which quantity is revealed to us. Space gets its visible form from the mass of the wall, while the volume of the mass gets its measure from the directly measurable line.31

This completes Van der Laan’s three-fold function of architecture: to delimit a habitable piece of space for our bodies; to demarcate the extents of this space with solid forms that are sensorily perceptible; and to build this architecture in a manner that is intellectually legible. For Van der Laan, it is by measuring space that we intellectually comprehend it. We measure by number; quantity is understood by number. Therefore, since we are dealing with the continuous quantity of space and form (and indeed of time as we shall see in the following chapter) we tend to impose abstract measurements on them if we are to know ‘how many?’ rather than ‘how much?’ 32 That is, we rely on artificial units of measure (such as the metric system) to measure continuous quantity. However, it is better that we deal with discrete measure and that the units of measure are intrinsic to the building itself so we can know its discrete quantity directly. That way we may, for example, contrast the built church at Vaals with the revised, (unbuilt) version by comparing the number of their respective bays of piers, or clerestory windows, etc - (the built church is eight bays of piers by fourteen bays of clerestory and the revised (unbuilt) version is seven by fourteen). The gauge of Van der Laan’s architecture is the elementary solid-block, and it should be noted that this is not necessarily
the building-block (the brick in Vaals’ case) but the three-dimensional unit of size, determined by the wall-thickness.

As has been illustrated, Van der Laan’s architectonic theory is concerned with the notion of limits: extracting a limited piece of space from the limitless space of nature; that space is limited by solid forms; those forms are perceivable by their limiting surfaces; those surfaces are limited by their meeting edges; by the lengths of these edges, we can measure the size of the lines, planes, and volumes of the solid masses and architectonic space. It is Van der Laan’s assertion that by the act of measuring we make intellectual contact with the solid forms and architectonic. It is by making intellectual contact that we can be said to know the architectonic space.

Here, too, when dealing with size, is Van der Laan concerned with limits. This, again, is to make intellectual contact when confronted with the infinite possibilities of size present in nature. He categorizes size into margin of size, type of size and order of size. The margin of size is the limit within which we can ascribe equivalence to sizes, even if their actual size varies. In other words, we may regard all sizes within a certain margin as if they were the same. The variance of the sizes is certainly not unlimited; beyond a point, they fall into the succeeding margin of size. Van der Laan illustrates this concept with a story from his childhood, whereby he watched as builders were sifting gravel through two sieves; one large, one small. Only the gravel that passed through the mesh of the larger but was caught by the mesh of the smaller was fit for use as aggregate for the concrete foundations.

The margin of equivalence is proportional to the sizes involved, and therefore there is a geometric progression. The limits of the margins of size mark the transition-measures: these are the types of size (i.e. typical sizes). Using Van der Laan’s example, these typical sizes would correspond to those pieces of gravel that exactly fit the size of mesh. Here, again, the progression is not infinite, but limited by a maximum ratio (1:7) beyond which, according to Van der Laan, two sizes can have no meaningful relationship with one another. It is this limit that governs the order of size. The ground-ratio by which the types of size succeed each other is 1:1.325, (approximately the Pythagorean fourth, 3:4.) This is The Plastic Number,
the proportion system that Van der Laan discovered. Van der Laan’s proofs are outlined in *Architectonic Space* and it is not necessary for our purposes to recount them here. However, in abridgment of the Plastic Number system, Padovan observes, ‘its basis is the distinction between linear, planar and volumetric size, with their single, double and triple relation to the unit of length.’ It is, moreover, instructive to consider its inherent properties and compare these with Le Corbusier’s *Modulor* and the Pythagorean system:

Its intrinsic arithmetical properties give the Plastic Number outstanding advantages as a system of dimensional coordination. While in general structure it resembles Le Corbusier’s *Modulor*, it differs from it in two important respects. First, where the Modulor series has no upper limit, so that its proportions can proliferate to the point where they can no longer be grouped, the Plastic Number’s order of size is limited to an extreme ratio of 1:7. Secondly, all the proportions between the eight measures that make up an order of size can be expressed, as in the Pythagorean systems of the Renaissance, in terms of the relations between just four integers: 1, 3, 4 and 7, giving the simple commensurable ratios 1:1, 3:4, 4:7, 3:7, 1:3, 1:4, 3:4² and 1:7. This gives the Plastic Number very great additive qualities: any measure can be composed from smaller ones, either by squaring, tripling, quadrupling or multiplying by seven, or again by adding two, three, five or seven consecutive measures, or in countless other ways.

As with his architectonic theory, Van der Laan’s proportion theory, *The Plastic Number System*, is governed by limits. There are limits within which sizes can be considered equal; there are limits within which types of sizes can be considered in relation to each other; and limits beyond which a relationship is no longer meaningful. Van der Laan recapitulates the relations:

The seven relationships of architectonic space

The outside under the spell of the inside
The inside under the spell of the wall
The wall under the spell of its surface
The surface under the spell of its outline
The line under the spell of its measure
The measure under the spell of the plastic number
The number under the spell of the ground-ratio
It is by these relationships that Van der Laan has established a measure-scale. It is by this measure scale and through a succession of orders of limited sizes, he has made meaningful and intelligible the relationship from the smallest architectonic element to the entire town:

From being part of a measureless continuum, a certain part of the space of nature has become a delimited territory, marked in clearly recognizable, graded intervals. A piece of the unknown: and precisely by the fact that we cannot know it.\footnote{43}

For Van der Laan it is, in fact, because of our inability to perceive proportions that it is so essential to our need for order:\footnote{44} Thus the entire architectonic environment is made habitable, perceptible and intelligible. And thus the great conflict that Van der Laan discerned between man and nature is resolved; and resolved by architectonic means:

We must see this great confrontation of architecture and nature as the counterpart of our intellect's initial encounter with the infinite extent of that spatial given. And since this same spatial given itself gave rise to the measure-scale that enabled the form of the smallest part to grow out into that of the largest whole, the confrontation with it of the ultimate building-form completes a sort of cycle.\footnote{45}

Indeed, with its complex of different buildings and different functions of accommodation, the monastery at Vaals may be considered to be like a microcosm of the town. Finally, more than just playing this functional, mediating role, architecture is expressive. It is in this very act of making that architecture images creation.\footnote{46} Everything that we make is a 'little world within the world,' according to Van der Laan, and because it is we who have made this small creation we must know it: 'the measures embodied in that little piece of reality permeate ... the greater reality around it. We measure out our house, and the house in turn gives measure to the surrounding space.'\footnote{47} Furthermore, just as our human being comprises body and spirit, so too must the house (being that most elementary human endeavour) determine to serve the satisfaction of the intellect over and above bodily comfort.\footnote{48} The buildings we make must incorporate information for our intellect, in order to have a genuine relationship with the natural form-world. After all, it is from the natural world that the building elements are extracted and it is to the natural world that the resultant architectonic forms are added. In
this, Van der Laan perceives a cycle of spirit and matter - ‘the intellect is itself moulded by the things it makes. Paradoxical as it may sound, it is by building houses that we must learn how to build them.’

Since we cannot call our making genuine creation, but rather a reshaping of one or other element of the created world of nature, we must regard the whole play of cultural forms, not as an autonomous form-world, but as a human reaction to the order of nature. It is a way of adapting that order to human existential needs: to the needs of the body by means of the function of our artefacts, and to the needs of the mind through their expression. By these means natural things become both usable and intelligible. The limitless variety of natural forms with their inscrutable order and harmony gives way to a very limited range of forms whose connections are readily intelligible; for instance, we can count up to large numbers by reducing them to those few relations to the unit that enable us to count up to ten. One has to consider how architecture, which arises from our need of habitation, has the power to give measure to the measureless space of nature, which thus becomes knowable for us; or how in song and dance the continuous passage of time takes on discrete form, and is thus made countable.

It is to the ritualised song and gestures of the liturgical performance that our attention will now be turned to.
With regard to the above titular notion, let us enlighten ourselves by diverting our attention, briefly, to a passage in one of Van der Laan’s favourite books; *Citadelle,*¹ the great, posthumously-published work by the author of *Le Petit Prince,* Antoine de Saint-Exupéry:

For I have lit on a great truth: to wit, that all men dwell, and life’s meaning changes for them with the meaning of the home … For once we feel that these divers things are bound together in a whole, then and only then, do they make an imprint on our hearts. Likewise, he who dwells and he who dwells not in the kingdom of God do not inhabit the same universe … And our immemorial rites are in Time what the dwelling is in Space. For it is well that the years should not seem to wear us away and disperse us like a handful of sand; rather they should fulfill us. It is meet that Time should be a building-up. Thus I go from harvesttide to harvesttide; as, when a child, I made my way from the Hall of Council to the rest room within my father’s palace, where every footstep had a meaning.²
And our memorial rites are in Time what the dwelling is in Space - it is just as Van der Laan’s architecture gives measure to the immeasurable space of nature that the rites and rituals of sacred time give measure to the infiniteness of temporal duration. *It is meet that Time should be a building-up* - in other words, Saint-Exupery declares to us that it is a good thing, time being a construction; a construction that is given its framework by the events that punctuate it. Not only did Van der Laan appreciate this metaphor of time as construction, but he also recognized the analogous relationship between his purpose for architecture and the measuring of time by the liturgy:

If the purpose of the house is to adopt the natural spatial datum, with its space, form and size, to our complete existence with its physical experience, sensory perception and intellectual insight, we must not content ourselves with architectonic space and architectonic form alone; we must in addition so build the house that it presents the quantity of space and form to us in a way that we can intellectually apprehend. It is then not just that we express the dimensions of the house as so many metres or centimetres; but that by means of the house we can ‘measure’ the quantity of the spatial datum. There is the same difference between measuring time by a clock or by rhythmic music or dance.³

Where Van der Laan refers to rhythmic music and dance we may substitute with choral singing and ritual gesture when specifically considering the liturgy at Vaals. As was highlighted in the introduction, for the Christian, ordinary time is punctuated by sacred time. That is to say, there are two types of time: the sacred and the profane; and the religious believer dwells in both. Profane time (that is ordinary, historical time) is intermittently interrupted by the feasts and festivals of sacred time. Needless to say, religious activities are conducted in sacred time and those non-religious activities take place in ordinary time. It is by means of threshold and rites that ‘religious man can pass without danger from temporal duration to sacred time.’⁴ In the following chapter we shall consider in more detail those thresholds (both in time and space) peculiar to Vaals. For the time being, let us return to Eliade to further augment our understanding of the notion of heterogeneous time:

Hence religious man lives in two kinds of time, of which the more important, sacred time, appears under the paradoxical aspect of a circular time, reversible and recoverable, a sort of eternal
mythical present that is periodically reintegrated by means of rites. This attitude in regard to time suffices to distinguish religious from non-religious man; the former refuses to live solely in what, in modern terms is called the historical present; he attempts to regain a sacred time that, from one point of view, can be homologized to eternity.  

When discussing sacred time in the context of Van der Laan’s Benedictine Abbey at Vaals, what we are really referring to is that great construction in time; the Liturgy of the Hours.  

It is imperative to examine these liturgical rhythms in order to develop a fuller, richer and essentially more complete comprehension of Van der Laan’s masterpiece. In electing to give up his formal education in architecture, it could be claimed that Van der Laan gave real expression in his life to the renunciation of the profane world in favour of the sacred. In his becoming a monk, Van der Laan started life anew; a life (as Bernhard Schutz puts it in his substantial study of European monasteries), set aside for ‘prayer and the eternal praise of God, for silence, asceticism, and obedience.’ More pertinent for the present discussion, though, is that in selecting the monastic way of life, Van der Laan chose a life ordered daily by a ritual framework in time.

The overlaying of the sacred and the profane is replicated in his own life – his contribution to the profane world of architecture that is coupled with his divine vocation as a Benedictine monk. Herein, we can observe the mirroring in the life of the architect-monk: as an architect Van der Laan was concerned, primarily, with architectonic space; and as a monk, primarily, with liturgical time. His contributions were to the profane world of architecture but also to the sacred world of his religion. Here, again, we may trace *ima summis* - the lowest with the highest.

The monastic community at Vaals of which Van der Laan was a member belongs to the Benedictine Order, founded by St Benedict of Nursia (480 to 555-60AD). Having begun his monastic life as a troglodytic hermit, St Benedict established the monastery at Montecassino with a number of loyal, eremitic followers in 529AD. The Rule of St Benedict was conceived and accomplished around 540-550AD and was essentially a manual for the good housekeeping and the spiritual welfare of a cenobitic community numbering around one hundred and
fifty. St Benedict’s Rule was subsequently adopted by the Cluniac, the Cistercian, and the Trappist Orders in addition to the Benedictine Order. The Rule stipulates vows of personal poverty, chastity and obedience and prescribes a carefully considered schedule for the monks that underpin their lives. This schedule is composed of an ascending triumvirate of work (architectural in Van der Laan’s case), lectio Divina (holy reading), and the opus Dei (choral office), of which the most revered was the opus Dei or the Liturgy of the Hours. 8

St Benedict … attributed the greatest importance to what he called the opus Dei, to which no other work should be preferred. This service to the glory of God, which ought to be carried out with the greatest attention and spiritual sensitivity, takes a place of prominence in Benedict’s Rule. 9

Indeed, of the seventy-three chapters in the Rule of St Benedict, twelve are dedicated to the Liturgy of the Hours. These are the liturgical offices which constitute the sacred time that is superposed on the ordinary time. As has already been outlined, the liturgy serves to ritualize humanity’s dialogue with God. However, the significant by-product of its interrupting ordinary time, is the measure it gives to its infinite duration. It is the structuring rhythm of the Liturgy of the Hours that achieves this and it is for this reason that we should consider it as a centuries-old, monumental construction in time. The Liturgy of the Hours is inherently an image of creation; its diurnal structure imitates day and night. However, it also images the divine mysteries:

The Liturgy of the Hours, by its very nature, is to be celebrated at definite hours of the day and of the night. Because of its remembrance factor, it has a clearly chronological reference to the distinct mysteries of salvation in relationship to the mystery of Christ and of the Church. And again, by its very nature, this prayer is destined to sanctify the entire course of day and night as well as of all human activity. 10

Essentially, the Liturgy of the Hours is a prescribed set of prayers. It is a spiritual communication; a response by the Church to its Redeemer: There are major hours (matins, lauds, vespers) and minor hours (prime, terce, sext, none, compline). The major and minor refer to the duration of the office rather than their liturgical importance (otherwise compline might be considered amongst the major hours). All one hundred and fifty psalms are recited over the course of the
week (in what St Benedict refers to as the Psalter)\textsuperscript{11} and these are interspersed with hymns, canticles, antiphons, readings etc. At Vaals, with the exception of some readings (spoken in monotone), these are all sung in Latin Gregorian chants in the antiphonal style.

After the Second Vatican Council (1962-65), the Liturgy of the Hours was relaxed in some instances (the omission of prime for example) but the community at St Benedictusberg still observe the ancient rule.\textsuperscript{12} The order of the day there is as follows (the Hours are emphasised) and its rigorous structure is self-evident:

\begin{tabular}{l}
0430 & Awakening. The awakening call Benedictam Domino is answered by Deo Gratias. \\
0500 & Matins and Lauds. The night office is separated from the morning or dawn prayer by a short interval. \\
0700 & Messe Basse. The Missa Brevis is a private Mass for the monks in the Basilica Inferiore (crypt). \\
0730 & Prime. The first-hour prayer: This is followed by breakfast. \\
0930 & Terce. The third-hour prayer; followed by the High Mass. \\
1215 & Sext. The sixth-hour prayer: This is followed by dinner. \\
1315 & Siesta. \\
1400 & None. The ninth-hour prayer: This is followed by work. \\
1700 & Vespers. The evening prayer. \\
1900 & Chapter. \\
1930 & Supper. This is followed by recreation. \\
2030 & Compline. The closing office and dismissal.
\end{tabular}

It should be noted that on Sundays and on Holy days at Vaals, the Matins begins fifteen minutes earlier to account for additional prayer.

The Liturgy of the Hours is like a great construction in time. If we may be excused for persevering with the analogy (and analogy has a sound precedent according to Van der Laan; he valued this one in particular)\textsuperscript{13} then its extended representation may be illuminating. We
may risk remarking that just as in the Abbey church at Vaals, there is an entrance to that construction in time, the Liturgy of the Hours. This is the Matins or night office: introvert; dark and silent; given over to God. It is in anticipation of what is to come. Beyond this entrance in time, the ambience is altogether different: the Lauds or dawn prayer; bright and clear; accompanied by praise, blessing and glorification. The associations, here, are with morning, dawn, sunrise, the beginning of the day. The minor Hours count the hours of daylight in accordance with the old Roman way. Counterpart to the Lauds is the Vespers, or evening prayer. The work is done, the day is ending; transitory in nature, there is an awaiting of the kingdom of God. The symmetrical structure of the Liturgy of the Hours, embodied in the double-axis of Lauds and Vespers is reinforced by their main hymns: the *Benedictus* and the *Magnificat*, respectively. Finally, and exiting this great construction in time, the Compline is a reflection on the day behind and praise to God for the gift of the day. There could even be said to be corresponding synaesthetic associations with each of the Hours, provoked in equal part by the hue of the clerestory light and the ambience of the office: purple for the matins; blue for the lauds; red-orange for the vespers. Thus the rhythm of the day, day and night, that very elemental experience of humanity and furthermore every living creature, is formalised, ritualised and offered daily to God.¹⁴ The entire focus of the Liturgy of the Hours is towards the Holy Mass, whose spatial counterpart is the altar.

Van der Laan, himself, made the analogy between paintings that decorate a blind, silent wall and the ornamentation of the blind wall of time with the psalms and hymns.¹⁵ This echoes the proclamation of the psalmist David, ‘*David vocor, tempora Dei laudibus orno.*’ - ‘I, David, decorate God’s time by praising God with my song.’ The Latin verse is inscribed on the bell that announces daily prayer at Vaals.¹⁶ Van der Laan has also compared the hymns of the liturgy to the galleries and atrium at Vaals, and the Psalter to the rhythm of the clerestory windows in the church, as well as the simplicity of the construction of the building to the simple structure of the Gregorian chants.¹⁷

The nub is that, to Van der Laan, both constructions - architectural and the Liturgy of the Hours - serve the same purpose. By placing markers in space and time, the immeasurable becomes measurable; by demarcation, intelligible. Furthermore, intelligible space and time are
now uplifted to the praise of God by their being consecrated and sanctified for that purpose. The liturgy may be considered as a celestial undertaking rehearsed here on earth. Thus, the liturgical rhythms superposed on Van der Laan’s architecture together give limited order to the limitless space/time continuum for the lives of the inhabitants of the monastery and those that use it.
In the preceding chapters, we have established and examined all the necessary constituents that combine in the amalgamation of Van der Laan’s architecture and in the Liturgy of the Hours to form the particular spatio-temporal composite at Vaals. This synthesis of consecrated space and sanctified time has an idiosyncratic character at the Abdij St Benedictusberg, a genius loci, the phenomenology of which will be broached in due course. It is the literary critic, M.M. Bakhtin to whom we owe the concept of the chronotope,¹ and indeed the word itself is his invention (a conflation of the Greek; literally ‘time space’). Where Bakhtin uses the concept as a tool for ‘defining the distinctiveness of the novel’² particularly in generic terms, we will borrow the term to define the distinctiveness of Van der Laan’s work at Vaals. The chronotope refers to the interdependency of spatial and temporal correlations and in particular defines the distinguishing spatio-temporal matrices expressed in art as form-giving signs.

Time, as it were, thickens, takes on flesh, becomes artistically visible; likewise, space becomes charged and responsive to the movements of time, plot, and history. The intersection of axes and fusion of indicators characterizes the artistic chronotope.³

Before we proceed further with the idea of the chronotope, it must be emphasized that Bakhtin’s usage relates specifically to the spatio-temporal characteristic of a novelistic work and the visceral grasp of the created world therein that the work excites. It is important to underline, here, that the created world is quite distinct from that in which the work
was created. That must not detract from the chronotopic significance of the creation at Vaals though, and it certainly must not deter us from borrowing the term. As has been demonstrated over the preceding chapters, what we are encountering at Vaals is not only the architectural embodiment of Van der Laan’s theory but also the playing out of the Liturgy of the Hours. Both are constructions, created by man: in the former the spatial characteristics are the stronger; in the latter, the temporal characteristics are the stronger. Together, they combine to form a consecrated space-time matrix that is unique and separate from the profane space-time beyond. The temporal narrative of the liturgy in a very real sense animates the architectonic backdrop; as Bakhtin puts it, ‘Space becomes more concrete and saturated with a time that is more substantial: space is filled with real, living meaning …’

In the sacred chronotope at Vaals, we are appraising a doubly-created world; as distinct from ordinary space-time as the novelistic chronotope is from the real world of its author: The joint assemblage in space and time, architected centuries apart by St Benedict and Dom Hans Van der Laan, makes concrete this sacred, chronotopic metadrama; makes inseparable the interwoven relationship between time and space. Moreover, as will be demonstrated anon, kinship of the chronotope at Vaals with the novelistic chronotope is a less distant familial relationship than perhaps presupposed.

As presented in the earlier chapter; and according to Van der Laan, liturgical forms are no different from cultural forms, (at least, formally); the difference being that with cultural forms the communication is between humans, and with liturgical forms the communication is between human being and God. That being so, the constitutive liturgical forms comprising the chronotope at Vaals are most in affinity with theatrical cultural forms. Rather, to be more precise, the liturgical form at Vaals could be said to have a corresponding cultural form in the theatrical masque. Furthermore, in Van der Laan, we find not only the ‘scenographer’ of this ‘liturgical masque’, but also the choreographer, orchestrator of lighting, and designer of costume and props.

Of course, there is a long, if slightly aberrant, tradition amongst architects who would also dabble in the design of theatrical masques and that renowned list would have to include
Giulio Romano, Inigo Jones, John Vanbrugh, and more recently, John Hejduk. All those attending a masque would participate, to a greater or lesser degree, with professional actors and musicians hired to play specific roles. Music, singing, dancing, and acting would be performed on a backdrop of an oft-elaborate stage set, designed by the architect, whose divergent role would also often be to design the costumes and props. The parallels between the theatrical masque and the liturgical office at Vaals are obvious: both have their physical setting designed by a master-architect; responsible not only for the scenography but also, as sacrist, the choreography. In addition, Van der Laan also designed the furniture, the bindings of the Breviaries and Psalter; and the liturgical garments and utensils:

As a sacristician of the abbey at Vaals he has been responsible not only for organizing its rites and ceremonies, but also for the design of the vestments and altar silver; the music and the ‘choreography’ of the service: in short, for the ritual as a work of art.

All attending the Hours at Vaals participate in some manner: the abbot, priests, deacons and choir-monks all have different roles, (that in some instances alternate when prescribed); the religious congregation are invited to receive the Eucharistic sacraments; and even the secular observer is at liberty to participate in gesture. The important difference between the theatrical masque and the Liturgy of the Hours is not a formal one. Rather, it is precisely the re-designation of the form’s elevated communicative purpose that profoundly sets apart the liturgical from the cultural form.

Nevertheless, the sacred chronotope expressed in the Liturgy of Hours at Vaals, has a resoundingly theatrical content: clearly delimited in space and time; explicitly defined acts; processional around the sanctuary; dramatic in its use of significant gesture and posture; allusive with the lighting of the candle; sensate in the perambulation of the incense; emblematically festooned with sash and cloth. Certainly to the uninitiated, a corresponding sense of awe is symptomatic as this solemn theatre unfolds.

An enriched understanding of the relationship between the theatrical masque and the chronotope at Vaals is provided by an appreciation of an overarching classification that both
cultural and liturgical forms belong to. Namely, they are both subject to the play-element, as defined with such lucidity by the Dutch historian, Johannes Huizinga. The chronotopic significance of the Liturgy of the Hours’ place within the play-element is marked. It is to Huizinga’s exposition of the play-element, Homo Ludens, that we shall turn, in order to properly define the properties of play:

Let us enumerate once more the characteristics we deemed proper to play. It is an activity which proceeds within certain limits of time and space, in a visible order, according to rules freely accepted, and outside the sphere of necessity or material utility.8

Play is an activity that exists for a set duration outside the bounds of ordinary time and space. It is governed by its own rules which, although voluntarily adopted, must be abided by. Huizinga makes a convincing case that play not only permeates all cultural forms (and therefore by Van der Laan’s logical assessment, liturgical forms) but precedes culture itself.9

We have already adequately established that the sacred chronotope at Vaals is distinct from ordinary life, both in space and time - so far, so much in common with Huizinga’s definition of play. Every type of play has a governing set of rules that must be voluntarily adopted by those wishing to participate. We can only be invited to play; that play is voluntary is vital. However, once the rules are voluntarily adopted, they become completely binding.10 Clearly, the Rule of St Benedict is such a steadfast rule, which must be voluntarily adopted by the Benedictine. Only after conscientious, prayerful consideration and a meticulous novitiate (during which time there is the option to opt out) would the novice then be fully accepted into the monastic community. Indeed, the very serious play of the cenobitic vocation is a lifelong commitment. However, this monastic rehearsal here on earth (in preparation for eternal life in the Holy City)11 is not precisely the same as the equally serious play of the Liturgy of the Hours that manifests itself, in the case we are particularly considering, during the sacred chronotope at Vaals.

[The Liturgy] with endless care, with all the seriousness of the child and the strict conscientiousness of the great artist, has toiled to express in a thousand forms the sacred, God-given life of the soul to no other purpose than that the soul may therein have its existence and live its life. The liturgy
has laid down the serious rules of the sacred game which the soul plays before God.  

As previously outlined, the Liturgy of the Hours involves three categories of *signa sensibilia*: space occupying forms; forms occupying space and time; forms occupying time only. Over a period (through convention and institution) objects, movements, gestures, and song have become formalised in the liturgy, which is then rehearsed daily in the pattern described in the previous chapter. By the rites of Baptism and Confirmation into the Catholic Church, the sacred rules are adopted, and the representations of divine mysteries are played out in the Liturgy of the Hours. Huizinga’s words are no less true in the context of the sacred chronotope at Vaals: ‘It lends a temporary, limited completeness to the incomplete reality of the world and the chaos of life.’ Bound by limits, the sacred chronotope at Vaals exists out-with ordinary space-time. The establishment of this privileged space-time requires an interruption from ordinary space-time. In this sense, space and time are not homogenous for the believer:

For religious man, space is not homogenous; he experiences interruptions, breaks in it; some parts of space are qualitatively different from others. ‘Draw not nigh hither,’ says the Lord to Moses; ‘put off thy shoes from off thy feet, for the place whereon thou standest is holy ground.’ (Exodus 3:5). There is, then, a sacred space, and hence a strong, significant space; there are other spaces that are not sacred and so are without structure or consistency, amorphous.

Likewise, time is not homogenous for the believer. Indeed, Van der Laan stresses the importance of creating a ‘hiatus … in the two fundamental conditions of our material existence: space and time’ in order to assure the liturgical value of the forms. ‘Within this interval things have their liturgical significance. By appointment and institution, pieces of space and time are set apart, within which things and signs hold their liturgical value.’ The demarcation of this significant suspension of the spatio-temporal continuum demands thresholds both in space and time. All play requires thresholds to set it apart. Temporally, the duration of a sport may be signified by the blowing of a whistle or a film by the cinema-hall being dimmed. Play-grounds set out the limits within space to which play is bound: a sport’s field may be demarcated by white lines painted into the grass; a theatrical play by the limits of the stage.
All play moves and its being within a playground marked off beforehand either materially or ideally, deliberately or as a matter of course. Just as there is no formal difference between play and ritual, so the “consecrated spot” cannot be formally distinguished from the play-ground...\(^16\)

In the case of the chronotope at Vaals, the liturgical space is circumscribed by the consecrated walls of the church building, and its thresholds are the entrance doors. The limits of liturgical time, on the other hand, are signified by the tolling of the bell. Finally, in significant gesture, the religious draw water from the stoups outside the doors and daub forehead with that holy liquid before making the sign of the cross. In this way the sacred space-time is demarcated, its thresholds empowered, and congregation prepared for the sacred chronotope. Van der Laan puts it thus:

> Within the walls of the sanctuary dedicated to acts of worship, things have only their liturgical significance. As soon as the bell sounds to announce the start of the religious service, words and actions are withdrawn from their normal meaning in order to carry only their appointed liturgical meaning. Likewise at the end of the mass the faithful are dismissed and returned to normal life, ‘And each returns to his good work,’ as the Roman Missal puts it.\(^17\)

We may compare this to Eliade:

> For the believer, the church shares in a different space from the street in which it stands. The door that opens on the interior of the church actually signifies a solution of continuity. The threshold that separates the two spaces also indicates the distance between two modes of being, the profane and the religious. The threshold is the limit, the boundary, the frontier that distinguishes and opposes two worlds – and at the same time the paradoxical place where these worlds communicate, where passage from the profane to the sacred world becomes possible.\(^18\)

Within these spatial and temporal boundaries, liturgical forms surrender their ordinary meaning in order to assume their liturgical substance. Meanwhile, of course, beyond the liturgical threshold, ordinary space-time ensues. However, the experience of entering into the sacred chronotope at Vaals is far more nuanced and sophisticated than merely opening a door into a space at the bells’ din. This is where the choreography of Van der Laan’s architecture
is so wonderfully rich and an important, contributing factor to the overall phenomena of such an idiosyncratic, chronotopic experience. There are three separate categories of people who share (actively or passively) in the fellowship of the sacred chronotope at Vaals, and it is logical, therefore, that Van der Laan should design the Abdij St Benedictusberg in such a manner that there be three correspondingly different experiences of transitional sequences that bifurcate sacred space-time from profane space-time. Those categories are the native monastic community, the guests, and the public. It could be argued that in each instance the starting point is the ultimate outside, that is, the limitless space of nature. In fact whilst there is no disputing that this is the case for the visiting public, for both the monk and guest, it is only a view from a window of the natural outside. For the monk or guest, the starting point is the cell or guest cell - (Van der Laan’s ultimate inside). It should be noted that the guest wing is quite separate and situated below the monks’ private quarters.

For the visitor, the preparatory journey begins at the foot of the private drive, a tree-lined avenue. Van der Laan’s ‘ark’ sits aloft the hill adjunct to Dominikus Böhm’s original, expressionist building. As the building complex comes into sight at the top of the drive, Van der Laan’s monumental cross stands in front of the church and crypt, themselves presented side-on. Clerestory and side-chapel windows punctuate the largely blank walls of church and crypt; the vestibule projected parallel and slipped. Perpendicular to the long walls of church, the porticoed end-wall of the porter’s lodge provides shelter to the entrance of the monastery. Inside, the hallway is lit by oculus and, turning, a few steps up to a pair of doors lead out onto the partially exposed atrium.

The internal, double-height atrium is open to the sky, except for its perimeter, which is colonnaded and covered. Essentially, the atrium is an image of the outside-proper. This sequential shifting of spatial tableaux from outside(proper)-to-inside-to-outside(image) back again is a fantastically powerful and absorbing architectonic experience. This slowing progression deliberately prepares the body, mind and soul for transferral into sacred chronotope. The concrete of the steps ahead are in contrast to the Belgian Blue sets of the atrium, but the most important attribute of these steps (other than their leading to the church, of course) is their pitch. The deliberately shallow steps, again insist on a slowing down before the short
promenade around the upper-level of the atrium to the entrance doors of the Abbey church. Dominating one corner of the atrium, the campanile rings out, low and true. Van der Laan, himself, describes the sequence:

However, in order to manifest the inside-outside relation with respect to the church-space itself, a portion of the delimited space [the atrium] is both conceived and handled as an outside. The flight of steps, necessary because the church stands on a higher level, provided a pretext for this, but to re-enter an exterior space after having already passed through the interior space of the lodge is a quite intentional, strongly architectonic effect. The need for a roofed upper gallery is likewise exploited to articulate two parts within the very small dimensions of this artificial outside: an open central space, related to the galleries, which are in their turn directly related to the great doors of the church.

The atrium is also the meeting place of guest and non-guest before both groups ascend the gradual steps. However, the guests' journey commences in their cells. Upon the clanging of the steeple bells, the guest closes the door on his cell and proceeds along Böhm's low-vaulted corridors. Alongside the regular, plodding bell, the route is acoustically interrupted by the shuddering echoes of intermittent door-thuds. The material and formal transition from Böhm to Van der Laan marks the kink in the passage just before crossing through to the atrium. For the guest, too, the atrium is an image of the outside. The guest enters the atrium at the same level but facing the public access. Since this is the case, the advancement is either alongside the shallow stairs followed by a doubling-back; or a slightly overdrawn circumscribing of the atrium perimeter. The latter makes for a far more elegant diagram, (and would perhaps make for a more elegant experience,) but this doesn’t happen in practice.

The monks' accommodation is private. Their route traces that of the guest, but on the level above. Rather than entering the upper-level of the atrium, however, (at that juncture where Van der Laan meets Böhm), they proceed into the enclosed new cloister. This cloister, in the Van der Laan-designed part of the monastic complex, is the monks' version of imaged-outside. In fact the cloister represents the image-ideal of the natural outside, ordered and harmonious. Across the cloister garth, its green turf 'refreshing encloistered eyes,' the open gallery frames the natural outside beyond. Depending on their liturgical duties, the monks will
then enter the church directly or else round the cloister through the lavabo,\textsuperscript{24} and finally enter the church after robing-up in the sacristy.

So in each case, from their distinct starting points, Van der Laan has outlined an intentionally preparatory journey to the church building. Each route is uniquely dynamic and enriched by the imaging of the natural outside. These overlapping slow-dances to chapel serve to refine and reinforce the transition from ordinary space-time into sacred space-time. The successive spatio-temporal experience inside the double parameters of church boundary and liturgical duration is wholly enhanced and enriched by the preceding approaches.\textsuperscript{25}

However, it is once the time is announced by the great bells and those heavy, timber doors are closed behind, thresholds in time and space are crossed, that the singular chronotope at Vaals is commenced. The Liturgical Hours are catholic, more or less; the architectonic space by Van der Laan is unique. The \textit{sui generis} is determined by the architecture, then sensationally animated by the Holy theatre of the liturgy. It is to the physical manifestation of his architectonic theory, then, that our attention must be turned. It is instructive, therefore, to consider Van der Laan’s perspective on the purpose of the church building:

\begin{quote}
The church building is an architectonic space … [it] is the space we by nature require in order to locate ourselves and feel at home in the wider space of nature. Its articulation into major and minor spaces, and the proportion of forms and measures, can thus be wholly attuned to the expression of the building. The form of the furniture needed for liturgical use of the space can be limited to its function however: On the other hand, the altar placed in the middle of the space must be regarded as a pure monument, a symbol of an invisible reality, a sort of label for the space. Nevertheless, all three – furniture, space and altar – share a single purpose: to serve as a sign. For that purpose they are set apart and consecrated to religious worship.\textsuperscript{26}
\end{quote}

Just as the High Mass is the focus of the liturgy, so too is the altar the focus of the architectonic space: together they share the same monumental role. In anticipation of the Second Vatican Council, the sanctuary is in between and not beyond the choir stalls. Van der Laan believed that the traditional, tripartite spatial organisation would reduce what ought to be a collective activity into an observed display:
When I entered the monastery I quickly set myself against this arrangement, which turns the liturgy into a spectacle rather than a collective action. I therefore decided that the altar must be placed within the monks’ choir stalls. From the time I was made sacrist I dreamed of such a disposition, which has since been confirmed by Vatican II.27

The altar is conceived of as an autonomous, stone block on a plinth, also of Belgian Blue stone. Its neighbourhood is the ceremonial sanctuary area and the choir stalls. Van der Laan determined that the choir and altar space must be roughly square; that there should be a narrow space behind the altar for ceremonially addressing the congregation; and that the space in front of the congregation should not be elongated beyond square, lest the congregation be too distant from the liturgical acts.28 These elements comprise the church hall-space. This is then framed by the two long-galleries, the cross-gallery beyond the sanctuary, and externally by the atrium. The concrete floor of the hall-space falls gradually towards the altar, with two steps eventually separating hall and gallery. In this way, the distinction between hall and gallery is emphasized, and the focus towards the altar gently stressed. This is a functional reading of the conception of the architectonic space with respect to the pragmatic arrangement of the elements around the central altar core. However, as Padovan highlights, the problem with reducing an analysis of the space to merely practical concerns regarding its planning, ‘is that it leaves out of account the whole principle of generating spaces by the mutual neighbourhood of walls, which is the foundation of Van der Laan’s spatial theory.’29 Addressing a group of visiting students in 1978, Van der Laan provides the following explanation:

[At Den Bosch] we have always seen architecture in the context of the natural spatial given of a limitless space above the unlimited mass of the earth. We have managed, as it were, to capture that limitless space between limited wall-masses, to which, provided they stand close enough together, it becomes attached as an ‘inside’. The space formed by the walls thereby acquires a certain autonomy, which in turn enables us to relate larger spaces to it. You will have experienced this in our church, for there the large space of the church arises between the spaces of the side-galleries, which themselves have arisen between walls.30

The side-galleries,31 which essentially give rise to the architectonic space of the hall,32 derive their own spatial form between the two walls; one solid and the other perforated. The
The piers of the perforated wall reveal the wall thickness, and therefore the strength of the
neighbourhood. Each category of user has a nuanced experience of entering through the
lower-ceilinged gallery space before going into the hall-space. It is when in the gallery that
the wall-thickness to space corresponds with Van der Laan’s prescribed ratio 1:7. Clearly the
hall-space has no direct relationship with the wall thickness, and it is only if the gallery spaces
are considered as ‘virtual-masses’ (to borrow Padovan’s term), that they have a relationship
back to the ground-ratio. However, the validity of this notion is enhanced by the fact that
the gallery spaces have no direct light, their ceiling plane is lower than the hall and that (as
previously indicated) they are stepped. Furthermore the contrapuntal stacking of clerestory
on pier serves to knit together the perforated wall and reinforces the separation. Van der
Laan describes this placing of hall and gallery in lesson XII of Architectonic Space:

Superposition of hall and gallery can occur on one side of the hall or on both. In the latter
case the hall is peripherally enclosed by galleries, so its width is never directly confronted with
the wall-thickness; the distance between its walls is related throughout to the wall-thickness by
means of the width of the gallery, thus ensuring their mutual neighbourhood. The spread of this
neighbourhood is the same as for that of the gallery walls. So the hall borrows its form from that
of the gallery, and by means of it from the form of their common outer wall.

Van der Laan distinguished between ordonnance and disposition; the former being related to
the abstract and intellectual qualities of architecture, the latter related to the concrete and
material qualities. Under these headings, Van der Laan associated symmetry with the abstract,
and eurhythmy with the concrete: symmetry being the parts’ relation to themselves and the
whole; eurhythmy being the proportion of the individual parts (height, length, breadth). He
illustrates this with one of his favourite examples - Stonehenge:

In the case of the trilithons of Stonehenge, as primary wholes composed of parts, both these
ways of composing measures are clearly distinguishable. Each of the three stones has a height,
breadth, and length, whose mutual proportions determine the form of the stone. But besides
this, the heights of the lintel and of the two uprights have a proportion to the total height of
the trilithon, and the breadth of each upright has a proportion to the total breadth. In the first
case we are dealing with eurhythmy, which is a matter of form, while in the second case it is a
question of symmetry, which is a matter of size. Thus eurhythmy indicates proportions between the different measures of a single thing, and symmetry, proportions between corresponding measures of different things.\textsuperscript{36}

The trilithon as a whole has its own eurhythmy and therefore a symmetry to the whole monument. It is not difficult to discern the role that these trilithons had to play in precedence for the planning of the basilica at Vaals. Van der Laan’s arrangement of pier, lintel and clerestory is at once primitive, classical and modern in its simplicity. In other words, there is an innate sense of timelessness to that space, Van der Laan’s masterwork. It is the stoic stillness of the space that provides such a powerful backdrop for the religious ceremony. Onto this prosaic stage the Black Monks enter; habits swishing, incense swirling, the Holy theatre commences. Tuning bells, transubstantiated sacrament, chalice and plainchant are all contributing phenomena. The rhythmic pattern of the clerestorey windows provide ever-shifting, dioramic scenes of light and shadow, sky or night, tree-top or stars; a glimpse of the natural-outside and indicator of cosmic space-time. However, it is the frozen dance of the piers and clerestory that allow for the intellectual engagement with the space; it is the fragmentation of the wall into its sections which allows us to measure it, relate the parts to each other and the parts to the whole:

In the wall itself, besides the eurhythmic proportions between height, length and thickness, there also arise symmetrical proportions, but not in one and the same form as happens within the space. The wall must be pierced, both to give access to the space and to reveal the wall thickness; as a result it breaks down into parts that are symmetrically related both to each other and to the whole.\textsuperscript{37}

Van der Laan considers quantity of greater value than quality, of course. In this, and in contrast to modern sensibility, he professes allegiance to Vitruvius.\textsuperscript{38} He associates quantity, measure and abstract, intellectual concepts with spiritual and mental aspects; in other words concepts that must be grasped with mind. Conversely, he associates quality with the material and sensual; the world of senses and practical needs. Van der Laan believed that it was architecture’s role to connect these two opposed fields; to make materially tangible the intellectual and to lay a concrete, material foundation upon which to build the spiritual construction of abstract
thought. The church at Vaals is the very embodiment of his spatial theory, an architecture that reconciles the conflict between man and nature. In doing so, this is an architecture worthy of staging the more ancient Liturgy of the Hours. Thus, within the boundaries of the basilican walls, and for the duration of the time-honoured Hours, tableaux of infinite space-time are fathomable by Van der Laan’s chronotope, seemingly recalling St Paul’s epistle to the Romans:

For the invisible things of Him are clearly seen, being understood by the things that are made, even his eternal power and Godhead; so that they are without excuse.\(^{39}\)
By the mystery of the incarnation, God assumed a corporeal existence and entered space and time. Jesus Christ, Son of God and yet Son of Man, reconciled the sacred with the profane. In space and time, God lived in the person of Christ; and by the sacrifice of Christ’s flesh and blood human salvation was achieved. In the Christian faith, God encounters humankind in space and time. This is the sacred, spatio-temporal stage setting, *illud tempus* or ‘time of Christ’. It is the significance of the incarnation and salvation that underlies Van der Laan’s lifelong motto, *ima summis*, from the lowest to the highest.

The conciliatory nature of *ima summis* is discernibly mirrored both in Van der Laan’s architecture and, indeed, his life. Architecture’s role to give measure to the measureless space of nature corresponds to the role of the rites and feasts that make comprehensible infinite time. For Van der Laan, architecture must reconcile man within his natural environment; reconcile the material with intellectual; the sensual with the spiritual. The architect must design the double dwelling: at once, the home for the comfort of the body; and the home for the intellect and spirit. In the church building at Vaals, Van der Laan has created such a marriage of material and spiritual concerns. With a limited budget that would have made prohibitive the superfluous in any case, Van der Laan’s is an architecture that is fully concentrated on matters of the intellect. It is an architecture that aspires to the high orders of ordonnance and symmetry, the disposition of elements held in elegant concinnity. In fact Van der Laan held firm to the abstract, intellectual concerns to such a degree that he believed the pragmatic aspects would
follow in benefaction.\textsuperscript{2} In creating his masterpiece, Van der Laan has constructed a majestic spatial-counterpart to that esteemed construction in time, The Liturgy of the Hours. By the Rite of Dedication, the architectonic space at Vaals is transmuted into consecrated space.\textsuperscript{3} Thus, the consecrated space of the church and the sanctified time of The Liturgy of the Hours abandon the cultural value of their forms in order to realise their liturgical significance. The result is a singular, sacred chronotope in homage to God.

Similarly, we may trace the direction of \textit{ima summis} in Van der Laan’s own life, too. The son of an architect, Johannes (Hans) Van der Laan was born in Leiden in 1904, into a very religious Catholic family.\textsuperscript{4} He began his formal training in architecture at Delft in 1923. However, after completing the third year of his studies, and disenchanted by the course’s academic emphasis, he resolved to become a Benedictine monk, later saying “that by thus distancing himself from the problem of architecture he created a favourable condition for looking at it in a new light.”\textsuperscript{5} Indeed, it was during the architectural hiatus of his novitiate that Van der Laan discovered the Plastic Number. Furthermore, he recognised that architecture was the instrument for him to realise the theory of the Plastic Number. His entire architectonic theory underscores the indispensability of limits for the comprehension of space and form.

This emphasis sits happily alongside the Benedictine predilection for moderation. As a Benedictine monk, Van der Laan partook in the daily rhythms dictated by the triad of work, holy reading, and divine office in accordance with the Liturgy of the Hours. Looking back upon his life in his old age, it was another triad that Van der Laan would recognise as being the three formational stages of his life, homologous to those in his last book: an encounter with nature; an encounter with society; an encounter with the liturgy.\textsuperscript{6} He remembers a childhood of solitary walks around the botanical gardens, explorations of country estates, and lessons on the Creation from a nun. He recollects an episode of convalescence when he spent days on end in the garden observing wildlife and the hours at a time looking into his terrarium. This was a time of observation. Following this period, Van der Laan recounts a time of making: a period which began with him working in his father’s architecture firm, and then went onto study at Delft, eventually under Professor Granpré Molière.\textsuperscript{7} After his explorations of nature and culture, Van der Laan investigated the liturgy: in this he was ‘not concerned now with life
and making, but with prayer. Each formative stage of his life, (nature, culture and liturgy,) may be considered as a distinct act, each in rehearsal for the next; *ima summis*:

My whole life has in effect been a rhythmic sequence of reality and play - each time a reality that becomes a play for a succeeding reality, and I believe it will always be like that.  

Ultimately these were a rehearsal for the eternal life he looked forward to. Van der Laan, the architect-monk, praised God in space and time, as he lived out his earthly life in anticipation of a greater one. Van der Laan the architect built and taught: his buildings and his theory were his ministry and as such, offered as acts of worship. Van der Laan the monk lived his life in the community at St Benedictusberg, according to the rule of St Benedict, where he worshipped God as a choir-monk and a priest. Dom Hans van der Laan doubly-worshipped God; as an architect and as a Benedictine Father.

In the earlier chapter, we regarded the Roman Baroque architecture as the physical embodiment of the ambitions of the Counter-Reformation. In the twentieth-century, the Modern Movement was considered by some to be an architectural reformation: Le Corbusier would declare, ‘there is a new spirit … a great era has just begun.’ Van der Laan’s architectural philosophy was certainly counter to that of the Modern Movement. However, nor was his architecture in sympathy with the traditional style espoused by Moliere. Rather, his architecture was sympathetic to more primordial concerns: solid and void; light and shadow; form and space; mass and volume. His architecture sought to express its timeless truths, make intellectually accessible its systems of order, and manifest itself in buildings at once starkly modern and ruggedly primitive.

Van der Laan built only a handful of buildings: the monastery at Vaals (designed 1957, built in five stages between 1960 and 1986); Roosenberg (1973-1975); Waasmunster (designed 1979-1980, built 1982-1983); Naalden House (designed 1978, built 1982-1983); Tomelilla (1986-1995). That is to say he built four conventual dwellings and one private residence. In addition to these he wrote three books: *Le Nombre Plastiche*; *Architectonic Space*; *The Play of Forms*. In other words, his output was distinctly modest, particularly in comparison
to the prodigious efforts of Le Corbusier. However, as a religious man, Van der Laan would have been familiar with the biblical account of the miraculous nourishment of five thousand gathered, feasting on five small barley loaves and two small fish, only.\(^1\)

Whilst only his most ardent disciples would insist on the slavish imitation of Van der Laan’s architecture, there are sound lessons to be learned from the study of his theory and its manifestation in his buildings. These are universal and enduring lessons on the importance of limits; lessons in measured restraint; and lessons of observed moderation. In these more frugal times and with a built environment already littered with turgid icon, these are surely desirable lessons for this architectural generation to learn well and hold true to.
Photographs
Drawings
plan of monastery buildings
the routes to church
top-bottom:
monks
guests
public
this page:
plan of church (basilica superiore)
plan of crypt (basilica inferiore)
opposite page:
plan and section of cross-gallery
axonometric
the atrium
cutaway axonometric
church & crypt
Notes

All photography by the author; all drawings by Van der Laan.

Preface.
2. The liberty has been taken of employing poetic license here. To the detriment of the architecture, a whitewash has been applied over the cement-slurried brick in the church and other parts of the monastery. This deadens the surface of the walls. Fortunately, the areas of brick in the porter's lodge and in the library remain vandal free (thus far) so it is possible to gain an impression of how the space would have appeared as it was intended.
3. The Order of Jerusalem is a new monastic order, founded in Paris on All Saints' Day 1975, by a former chaplain to the Sorbonne, Father Pierre-Marie Delfieux. Having lived as a hermit in the Sahara for two years, he felt called to find the desert in the city. The foundation of a monastic community was a response to the urban environment, creating an oasis in the modern desert of the city.

Introduction. Sacred Space and Time: Theological Premise and Paradox
1. See: Eliade, M. *The Sacred and the Profane; The Nature of Religion*. Orlando: Harcourt, Inc., 1957, p. 112: ‘Christianity arrives, not at a philosophy but at a theology of history. For God’s interventions in history and above all his Incarnation in the historical person of Jesus Christ, have a transcultural purpose – the salvation of man.’
5. Ibidem, p. 43, Eliade states; ‘Whatever the extent of the territory involved, the cosmos that it represents is always perfect. An entire country (eg. Palestine), a city (Jerusalem), a sanctuary (The Temple in Jerusalem), all equally well present an imago mundi.
7. Ibidem, p. xx. However Van der Laan would dispute that the tomb (cave) is architectonic at all. Refer to Chapter II, note 5.
9. Ibidem, p.12. Eliade is quite clear; ‘It is impossible to overemphasize the paradox represented by every hierophany, even the most elementary. By manifesting the sacred, any object becomes something else, yet it continues to remain itself, for it continues to participate in its surrounding cosmic milieu.’
Chapter I. Ima Summis

10. Ibidem, p. 12. Note the similarity in: Wittkower, R. Architectural Principles in the Age of Humanism. London: Alec Tiranti, 1949, p. 101: ‘As man is the image of God and the proportions of his body are produced by divine will, so the proportions in architecture have to embrace and express the cosmic order.’
12. In addition to buildings this category would include furniture and other space-occupying objects.
17. Ibidem, p. 3.
20. Ibidem, p. 1: ‘So liturgy is broadly a system of external forms: significant objects, carefully chosen words and conscious gestures. We encounter the same forms in social life and culture, where they enable people to communicate with each other. Only in liturgy, however, do these forms serve to express people’s shared communion with God; in other words, religious worship.’
23. Of course, Van der Laan is making simplifications: the acoustics of spoken word and song occupy space, and the written word belongs to the space of the book.
Chapter II. Measure to the Measureless

3. Fletcher, Sir B. A History of Architecture on the Comparative Method. London: B.T. Batsford Ltd, p. 623. Sir Banister Fletcher puts it thus: 'The Baroque style arose first in Rome when architects had become satiated with the old and purely Classic forms and hungered for something fresh and piquant. Classic and Renaissance architecture had its chief expression in the straight line, with all the limitations this implied, and the Baroque style may be said to be the architecture of the curved line, with all the variety of possibilities to which this gives rise.'
5. Padovan, R. Dom Hans Van Der Laan: Architecture and the Necessity of Limits. Maastricht: Stichting Manutius, 1989, p. 9: 'But Van der Laan believes that architectonic space can only arise between masses clearly defined as independent forms; it cannot arise from the hollowing out of a mass, for then the mass surrenders its surface to space, and is no longer perceived as form. He rejects the cave as an-architectonic...' By inference, Van der Laan is rejecting Borromini's cavernous San Carlo.
6. That is not to say that Van der Laan's architecture is the only contributing element to the theatre at Vaals, (it is merely the backdrop upon which the sacred rites are played out,) but that there are no contrivances within the architecture itself.
8. These are provided in English by Padovan's translations of Van der Laan's writings and in the former's own elucidations on the subject.
9. It makes more sense for our purposes to consider it thus than the other way around, (i.e. that The Play of Forms is an extrapolation).
10. Barthes, R. Sade, Fourier, Loyola. London: Jonathan Cape, 1977. It is noteworthy, if slightly tangential, to consider that the first operation of the Logothete (maker of language) is self-isolation.
11. Padovan, R. Dom Hans Van Der Laan: Modern Primitive. Amsterdam: Architectura & Natura Press, 1994, p. 28. Padovan describes the importance of Van der Laan's brother Nico and the Den Bosch course in ecclesiastical architecture: 'It was in collaboration with Nico that Hans would carry out most of his work as architect, teacher and theorist. Nico's office, and later those of Nico's sons Hans and Rik, provided the technical support needed to execute Hans's designs, and it was through the medium of lectures at the "Course for Church Architecture" which Nico directed at Den Bosch from its foundation in 1946 to its closure in 1973, that Hans refined and developed his theory. The Course lent its name to the so-called Bossche School.
14. Note that the primary triadic 'nature, culture, liturgy' in The Play of Forms becomes the dyadic 'art-nature' in Architectonic Space, since the discussion is solely in the realm of the cultural form-world, (and in part due to the secular architectural audience.)
16. Van der Laan, H. Instruments of Order (n.d.) In: Eds. Farmer, B. & Louw, H. Companion to Contemporary Architectural Thought. London: Routledge, 1993, p. 284. Van der Laan describes the necessity of the intellectual engagement with the building, in addition to the physical need for shelter: 'If the house is to fit harmoniously into the space of nature, its making must be guided by the intellect. For nature includes a being who, in order to adapt it to his existence, must employ his intellect to complete it. Therefore, our human, intellectual products necessarily belong to nature.'
20. Padovan, R. Proportion: Science, Philosophy, Architecture. London: E & FN Spon, 1999, p. 338: ‘For Van der Laan … ‘architecture’ and the ‘house’ are synonymous. The creation of habitable space is not just a condition of making architecture, it defines architecture, at the same time as it is defined by the intelligibility of that space. In other words, architecture is not something added to building, it is building.’
21. It should be noted that at an urban scale, Van der Laan’s cell corresponds to the house; the court to the district; and the domain to the quarter.
23. Padovan, R. Dom Hans Van Der Laan; Architecture and the Necessity of Limits. Maastricht: Stichting Manutius, 1989, p. 10. Padovan outlines the geometric absurdity: ‘The only way, he argues, that space and mass can be related so as to exist side by side as forms, without disputing the interface between them, is by ensuring that the masses read unambiguously as self contained volumes bounded by planes, whereas the spaces appear bounded, not by these planes, but by the whole three-dimensional forms of the masses. As he points out, taken literally, this is absurd: lines are bounded by points, planes by lines and volumes by planes; as space bounded by volumes would therefore by implication be 4-dimensional.’
Van der Laan, H. Architectonic Space. Leiden: E.J. Brill, 1983, pp. 35. Van der Laan describes the problem himself: ‘A mass owes its form to the correspondence between its opposite surfaces; in the case of a wall these are its inner and outer faces. Together these determine a slab-form, whose thickness is just enough to sustain the form as form. The space that arises between such walls cannot have a form in the same sense as does the solid wall; both the inside space and the wall would then owe their form to the same inner face of the wall, which is impossible. A form can exist only against a formless ground, which means that a surface can only belong to one form. So a space owes its form not to a bounding surface, but to the form of a bounding mass. Taken literally this is absurd, for it implies a fourth dimension. Lines are bounded by points, planes by lines and volumes by planes. We cannot imagine a reality bounded by volumes, because it does not exist. Nevertheless, from the formed solidity of its walls the space too acquires a certain form, though this is entirely different in nature from that of a solid volume. The bounding surface of a volume exists by virtue of the reality of the solid volume itself, for a two-dimensional plane cannot exist by itself. Similarly the line owes its existence to the plane it bounds, and the point in turn to the line that it terminates. However the form of a solid wall is in no way dependent for its existence on the space that it bounds; on the contrary it is the space that owes its existence to the reality of its boundary.’
24. Van der Laan uses the example of stones.
26. Ibidem, p. 5. ‘Architecture is born of this original discrepancy between the two spaces - the horizontally oriented space of our experience and the vertically oriented space of nature; it begins when we add vertical walls to the horizontal surface of the earth.’
27. Padovan, R. Dom Hans Van Der Laan; Architecture and the Necessity of Limits. Maastricht: Stichting Manutius, 1989, pp. 10-11: ‘With walls thinner than [1:7] … the mutual neighbourhood is in danger of dissolving; still thicker walls, on the other hand, tend to make the space appear as a form bounded by surfaces.’
29. Ibidem, p. 145. Van der Laan explains the purpose of openings in a wall in more detail: ‘There are three reasons for the wall’s articulation by open and closed parts: first, to allow us to enter; and so experience the space within; secondly, to reveal the wall’s thickness, and so make it visible as a form; and lastly, to make the quantity of the wall knowable. Articulation enables
us to rotate the form of the wall as a whole to that of smaller parts, and through these ultimately to an elementary part that acts as a unit of size; and it is through this relation that we are able to read off the measure of the wall. The reason why this is so important is that this attunement of the building to our cognitive faculty as being the form of the wall under the influence of the quantitative order of the plastic number; and it is in this subjection to ordinance that the underlying purpose of the disposition of the wall must be sought."


32. Ibidem, p. 46. Van der Laan on the advantage of measuring discrete quantity over continuous quantity: ‘We make size the object of our knowledge by measuring it. This involves comparing the size with a yardstick - a known unit of size. The relation to this unit is expressed as a number determined by how many times the unit can be applied to the size measured. The ‘how-muchness’ of continuous quantity is thus expressed in terms of the ‘how-manyness’ of discrete quantity.’

33. Van der Laan, H. Het Plastische Getal (n.d.) In: Padovan, R. Proportion; Science, Philosophy, Architecture. London: E & FN Spon, 1999, p. 364: ‘For the eye the just noticeable difference is about 1/50 of the size concerned, but the formal difference, enough for us to make an intellectual distinction between sizes and so to speak give them a name, is much larger.’

34. Van der Laan, H. Architectonic Space. Leiden: EJ. Brill, 1983, p. 58. By recognizing the margin, type and order of size we set limits to the boundless possibilities of size present in nature. The margin determines the limits within which we call sizes equally large; they can actually vary in size, but not indefinitely; the transition-measures of the types mark the extreme limits. These typical sizes can also be larger or smaller but again within limits if they are to relate to have value for each other they cannot overstep the bounds of an order of size. The unlimited scale of possible natural sizes is thus trebly curtailed: first to an order of size, then to a type of size and lastly to the range of margin. Within these limits the measures can vary and yet remain within the grasp of our insight; every order of size can be represented by many types, and each type by many concrete measures.’


36. As opposed to an arithmetic progression.

37. This fundamental ratio, 3:4, found monumental expression in the ratio of width:height of the cross Van der Laan designed for Vaals. Its symbol appears at the beginning of each chapter in this volume.

38. For detailed proofs and more information on The Plastic Number; see: Architectonic Space and Proportion; Science, Philosophy, Architecture. As well as mathematical proofs, Van der Laan utilised experimental examples to illustrate the principles of his proportion system. Here Padovan is most succinct:

Padovan, R. Dom Hans Van Der Laan: Modern Primitive. Amsterdam: Architectura & Natura Press, 1994, p. 28: ‘Van der Laan demonstrated this principle using a set of thirty-six pebbles gathered in the monastery grounds at Vaals. He selected the pebbles so that they formed a series in which each stone was barely perceptibly larger than its predecessor - about four per cent in each dimension. They therefore constituted a rough representation of the natural continuum of size. His visitors would be invited to group the pebbles in types of size, starting with the largest, until none was left which belonged to that size. A smaller type of size was then revealed, until all the pebbles had sorted themselves out into five groups, each of seven stones, leaving one stone over; the smallest. This smallest stone, together with the ‘threshold’ pebbles of each of the five groups, defined five consecutive types of size comprising a limited order of size.’ However, it is worthwhile to compare Van der Laan’s own version:

Van der Laan, H. Instruments of Order (n.d.) In: Eds. Farmer, B. & Louw, H. Companion to Contemporary Architectural Thought. London: Routledge, 1993, p. 285-286: ‘In the nineteen-thirties, where the garden now lies behind our monastery, there used to be a gravel pit. A few metres below ground level lies a thick stratum of gravel, which geologists say is a former bed of the river Meuse which now flows past Maastricht. This is why in the paths of our garden one finds beautifully coloured, smooth-shaped pebbles, varying in size from two to eight centimetres. I cannot resist picking up these unusual stones, and little by little I have
built up quite a collection of them, which lies on the window-cill of my workroom. Unconsciously I began to sort these out by size, obeying a lifelong fascination with the sizes of things, equivalent to the interest painters have in their colour. By rejecting those pebbles whose difference in size was too small to be perceptible, I reduced my collection to a series of thirty six whose size difference just began to be noticeable; according to psychologists this difference amounts to about 4% of the size of the stones. It at once became apparent, however, that if the pebbles were spread out at random, they could be seen to belong to clearly different groups. One could start by picking out the largest ones, until a point came when none were left that belonged to that size. A smaller group, again of the same type of size, then revealed itself. In this way the pebbles sorted themselves out into five groups, each of six or seven stones which one assessed to be of the same size. In saying that the stones in each group were of the same size, I declared that the difference between the largest and smallest in each group just failed to count in relation to the size of the stones. And since the smallest stone of the smallest group roughly corresponded to the difference between the largest and smallest stones of the largest group, I also had to acknowledge that the five groups thus differentiated represented the complete range of sizes that could be related to each other.'

50. Ibidem, p. 284: ‘Human making is of great significance for creation as a whole, because it gives an image, within nature, of nature’s own origin. A limited, created intelligence here does in a limited way what in nature an unlimited, creating intelligence has brought about in an unlimited way.’

Chapter III. A Construction in Time

6. The other great, liturgical construction in time being the Liturgy of the Year.


10. Ibidem, p. 79.

11. Ibidem, p. 63: ‘In what he refers to as the psalter, St Benedict distributes the 150 psalms over the space of the week, insisting that this proportion never be reduced; even though he authorizes an alternate distribution of the psalms, he wants that number of 150 psalms to be recited each week.’

12. It should be noted that St Benedict introduced the eighth office, prime.

13. Van der Laan, H. *The Play of Forms; Nature, Culture and Liturgy*. Leiden: E.J. Brill, 1985, p. 40: ‘Analogy is not just a way of arranging in an orderly fashion the forms we engage with in our daily lives; it is an essential foundation of the structure of our very existence, for after all we are created in God’s image and likeness, and that again is an anagogical relation.’


16. Ibidem: Brother William explains that the inscription on the bell is paraphrased from the apocryphal text Ecclesiasticus 47:10. The inscription was chosen for the inauguration of the bells.

Chapter IV. The Sacred Chronotope at Vaals


4. Ibidem, p.120: Bakhtin is referring, (not inappropriately,) to the chronotope of a meeting.

5. Albeit, Hejduk’s masques are for psychic inhabitation, only. See: Middleton, J. *Mirrored Cities*. Glasgow School of Art, 2009, diploma.


7. Refer to Chapter I, note 20.


9. Ibidem, p.1: ‘Play is older than culture, for culture, however inadequately defined, always presupposes human society, and animals have not waited for man to teach them their playing’.

10. The figure of the spoil-sport is one of the most historically reviled. In the case of the Vaals, the figure of the spoil-sport (rule-breaker) might find an equivalence in somebody presenting themselves, uninvited for the Eucharistic sacrament. It is intimated that in addition to the exclusion of non-Christians from the sacrament, non-Catholic Christians may only partake in
Holy Communion if they have prior consent from the residing Bishop.

11. The monastery itself might be regarded as an earthly image of the Holy City.


Padovan, R. Dom Hans Van Der Laan: Modern Primitive. Amsterdam: Architectura & Natura Press, 1994, pp. 51-52: ‘Guardini and Van der Laan both used the word ‘play’ in their titles but in very different senses, and this difference highlights the gulf, not only between their two approaches, but more broadly between the romantic and classical concepts of art. For the romantic, play signifies above all spontaneity: an outpouring of energy, free of external control. For the classicist, play - however improvised - is always ‘played out’ according to certain agreed rules, and without these it breaks down.’


18. Eliade, M. The Sacred and the Profane; The Nature of Religion. Orlando: Harcourt, Inc., 1957, p. 25. Note also: Militello, C. A Theology of Liturgical Space. In: ed. Chupungo O.S.B., A. Handbook for Liturgical Studies Volume 5: Liturgical Time and Space. Collegeville, MN: The Liturgical Press, 2000, p. 407: ‘The figurative metonymy that allows the passage back and forth between the Church as mystery and the church as building determines and regulates the very structure of the place of worship. This metonymy is found at work especially in the correspondence between the stones and walls of the building and the living stones and walls made up of the faithful who constitute the assembly and take advantage of the stones and walls that circumscribe the church as building. The correlation of living stones-inanimate stones works out in two ways that are synergetic. A twofold phenomenology – linguistic and architectonic – determines the quality of the place of Christian worship. We are always speaking of a theological quality.’

19. Each of these categories may be further subdivided: the monastic community includes the ordained (the Fathers), the unordained (the Brothers); both remaining categories (guest/public) may be split between the secular (pilgrim/visitor) and the religious (pilgrim/visitor). During various stays at Vaals, the guests, for instance, would be an assorted combination of religious and architectural pilgrims and secular retreatists. The non-staying visitors would be a combination of local worshippers (particularly for the office of Terce, followed by the High Mass and the Vespers), daytripping tourists (architectural or otherwise) and groups of architecture/design students accompanied by their tutors. That such a variety of people get to experience Van der Laan’s monastery first-hand must be a good thing. In fact, the legacy of his work has bred a cult following amongst those architects familiar to it that at times can be invasive to the remaining monastic community which has to reconcile the friction caused by this with their obedience to the hospitality that St Benedict’s rule demands. The current Abbot at Vaals alludes to this in the following quotation and it is right to heed his caution:

Lenglet, Fr. A. Abbot of Vaals In: ed. Bradley, P. The Line Under The Spell of its Measure. Leeds: The Henry Moore Foundation, 2001, pp. 13-14: ‘The Benedictine Monastery of Vaals is a community of monks. Father Van Der Laan was one of them. He thoroughly shaped and influenced the physical environment of that community. The community’s aim, however, reaches beyond the preservation of the framework that Father Van Der Laan accomplished. The monastery is certainly not the ‘Hans Van Der Laan Museum,’ and will never become that either: We are a community of hard working people who pray and celebrate liturgy together: We ourselves are the first to experience the tension between these two realities: our monastic life with its own values and needs and this rather dominant physical environment, accomplished by Father Van Der Laan. It is also we, who need to manage this tension.’

20. Locals nicknamed the Abbey church, ‘Noah’s Ark’ when it was being built due to its siting on the hill.


24. The lavabo is the monastic lavatory where ritual water is poured.
25. The equivalent in terms of the novelistic chronotope would be the reader finding a quiet position in their library, perhaps a favourite chair; and blocking all else out of mind before allowing themselves to be fully absorbed in the chronotopes of the novel; that is to say, the reader is the psychic participant of the chronotope.
31. Ibidem, p. 153: ‘A juxtaposition of two galleries presents a special case of space-formation. If the galleries are arranged with their open sides facing each other they produce an elongated hall with a row of piers on its longitudinal axis.’
32. Ibidem, p. 156: ‘Considered in isolation, a space in which the distance between the walls is more than seven times their thickness has no architectural form, for despite being bounded horizontally by vertical walls it derives no form from them. But although in itself too large, this wall-spacing can be brought into indirect relation with the wall-thickness through its proportion to the wall-spacing of the spatial unit. In this way the bar-shaped space of a gallery, the mutual neighbourhood of whose walls spreads longitudinally, can also be extended laterally into a slab-shaped hall. The relationships between the widths of hall and gallery, like any other proportion, must be based on a common term - in this case the wall, and since the spaces are superposed on each other, the common outer wall.’
33. Ibidem, p. 144: ‘There are again many possible arrangements for these more extended dispositions, because stackings of piers or windows need not repeat the same symmetries. The upper rows can be spaced more closely than the lower ones, or vice-versa. Moreover it is also possible to combine pier and window arrangements, and so produce those facade-dispositions so characteristic of architecture, with rows of piers beneath rows of windows or the reverse.’
38. Romans 1:20, King James Version.

Chapter V. *Ima Summis (Reprise)*
2. Van der Laan, H. *Gesprek van de Architect met de Zusters van Waasmunster Over Het in Aanbouw Zijnde Klooster Roosenberg* (1974). Unpublished interview between Van der Laan and the Sisters of Roosenberg; Van der Laan infers that by making the church of perfect proportions, the elements in perfect harmony, etc. that the acoustics and functionality would also be perfect
for its use - as a providential gift.

3. Calabuig, O.S.M. I. *The Rite of the Dedication of a Church.* In: ed. Chupungo O.S.B., A. *Handbook for Liturgical Studies Volume 5: Liturgical Time and Space.* Collegeville, MN: The Liturgical Press, 2000, p. 333: ‘When the assembly (ecclesia) of the Lord’s disciples gathers to celebrate the divine mysteries, it creates a “holy space,” and there a building for worship is usually erected … But the relationship between the community and the place is such that, by a happy ambiguity, the name of the assembly itself becomes the name of the building: Church/church. Once the habitual place of meeting becomes a “building for worship,” the community feels the necessity, and the joy, of reserving it exclusively for the worship of God by means of an action that expresses this decision and, more importantly, calls down God’s favour upon it. So it is, as it was in antiquity. This eminently liturgical action is the rite of the dedication of a church.’


7. See: Padovan, R. *Dom Hans Van Der Laan: Modern Primitive.* Amsterdam: Architectura & Natura Press, 1994, pp. 66-71. M.J. Granpré Molière was appointed professor at Delf whilst Van der Laan was in his second year.


10. Le Corbusier, Ozenfant, Dermee (L’Esprit Nouveau)

11. John 6
A Selective Bibliography


