Sacred Spaces. Meaning, Design, Construction

ABSTRACT
The passage from sacred to secular space confers on religious space a wider functionality that will allow the incorporation of an abstract and open spatial symbolism to different perceptions of the divine to see, feel or invoke God. According to Rudolf Otto, on the Protestant churches the architectonic expression of the numinous is made by three fundamental elements of representation: obscurity, silence and emptiness. As elements that conceptually oppose the concrete or definitive symbol, they acquire a universal meaning that modern architecture itself will incorporate as a process of artistic emancipation. For a contemporary architect to design a religious space thus imposes an inevitable incursion into this Protestant matrix that appeals to the simplicity of forms, to the fidelity of construction and to the aesthetic experience as access to the transcendent. The mortuary chapels I am presenting takes up this contact with the modern constructive knowledge and with the return to the essential sacred place made of space, light and matter.

KEYWORDS
Sacred, Space, Light, Matter, Mortuary Chapel.

RESUMEN
El paso del espacio sagrado al espacio secular confiere al espacio religioso una funcionalidad más amplia que permitirá incorporar un simbolismo espacial abstracto y abierto a diferentes percepciones de lo divino para ver, sentir o invocar a Dios. Según Rudolf Otto, en las iglesias protestantes la expresión arquitectónica de lo numinoso está constituida por tres elementos fundamentales de la representación: la oscuridad, el silencio y el vacío. Como elementos que se oponen conceptualmente al símbolo concreto o definitivo, adquieren un significado universal que la propia arquitectura moderna incorporará como un proceso de emancipación artística. Para un arquitecto contemporáneo, diseñar un espacio religioso impone así una inevitable incursión en esta matriz protestante que apela a la simplicidad de las formas, a la fidelidad de la construcción y a la experiencia estética como acceso a lo trascendente. Las capillas mortuorias que estoy presentando toman este contacto con el conocimiento constructivo moderno y con el retorno al lugar sagrado esencial del espacio, la luz y la materia.

PALABRAS CLAVE
Sagrado, espacio, luz, materia, capilla mortuoria.
MEANING

In contemporary religious architecture there is a tendency of not only to choose simple and poor, but above all neutral environments as a way of accepting and integrating different manifestations of the divine. In Christian religious spaces, since the beginning that path is found at the Protestant Reformation, more centered in the meaning of the biblical text than on the representation of the divine; and, later, on the Catholic ideary inscribed at the Second Vatican Council, which sought to purify the cult (and rite), desacralizing it, to bring it closer to the common man.

Under Reformation (1517), we can find a first manifestation of the problem placed in the representations of the divine and in the new spatial/symbolic meanings that they invoke on the Hartenfels Castle chapel in Torgau. At this chapel, consecrated by Martin Luther in 1544, the construction of a single nave places the clergy and the faithful in the same space, sharing the Word of God. It will be a process of simplification and approximation to the believers that Calvin amplifies, giving primacy to the drawing of the pulpit (place of the Word), less to the altar and nothing to the figuration. As a consequence of this emphasis on the Word of Christ which brings man closer to divinity, all Protestant symbology will be reduced almost exclusively to the cross or in rare exceptions to the figure of Mary. It is no coincidence that in Germany the Bible was the first book to be printed after Gutenberg’s invention (1455).

The refoundation of German theology, carried out by Reformation operated in the faith and truth of the word of Bible, had immediate effects on the Counter-Reformation launched by the Catholic Church in the sixteenth century (1545) and the advent of the baroque architecture that the Jesuits would spread throughout the world. But it also had a decisive effect on the philosophical thought of the eighteenth century, which highlights the attempt to clarify the very conditions of human knowledge, namely the reconciliation of the meaning of truth with that of faith. For obvious reasons, this will have a direct influence on religious architecture.

In the essay On German Architecture (1772), Goethe proposes the term «expressive truth» (Forty 2000, 299) to characterize man's natural instinct to create symbolic forms, instinct that constitutes for him the origin of architecture. Shortly after in his Critique of Pure Reason (1781), Kant places truth in the category of transcendental aesthetics, which synthetically puts the representation of objects in direct connection with the sensitivity of the receiver, the sensitivity in relation to the intuition, which turn leads to thinking and thinking to the concept. And in a statement particularly useful to architects, he explains that from this process results «two pure forms of sensible intuition, as principles of a priori knowledge, namely: space and time» (Kant, 2008, 27-29). Although Kant’s aesthetics follow conceptual paths with a different scope, we are interested in retaining through his «sensitive intuition» this connection of truth with the binomial thought-sensitivity—the decoding of forms and symbols in relation to their constructive sense—, and its intrinsic relationship with perception and representation in a given space-time.

In this sense, the construction of symbolic forms and the expression of truth in architecture could be directly dependent on the interrelation between the capacity for direct visual recognition (in the a priori knowledge to which Kant refers) and the ability to establish increasingly complex nexus with the meanings that spaces acquire through constructive systems, materiality, light and sound.

When Gillo Dorfles refers to the decay and permanence of symbolic material, it seems to suggest that it is precisely this ability to read through forms, materials and light, with few or no express reference, which allows us to identify the character of a place, «even if all the news about the conventional value linking the two terms (the image and its meaning) has been lost. It is this fact that leads us to suppose the existence of an artistic supercommunication (...) and the existence of a possibility of transconceptual signification that could constitute the nucleus of the art and to identify with that formative principle that is in the base of it» (Dorfles 2001, 82).
In theological terms this theme was deepened at the beginning of the twentieth century by both Rudolf Otto in *Das Heilige. Über das Irrationale in Göttlichen und sein Verhältnis zum Rationalen* (1917), a Lutheran theologian, and by Romano Guardini in *The Spirit of the Liturgy* (1918), catholic theologian who seeks to reconcile the Church with urban society. Rudolf Otto puts the question in architectural terms in the representation of the *numinous* (from Latin *numen*), which he considers to have three fundamental means of aesthetic expression, potentially generating the experience of the *sublime*: obscurity, silence and emptiness (Otto 2005). They are all intangible elements that are recognized in primitive religious architecture and somehow in the religious architecture of reform. As elements that conceptually oppose, by denial, the *concrete* or definitive symbol, they acquire a universal meaning that modern architecture will incorporate as a process of artistic emancipation.

It will be with this theological comfort that the progressive abandonment of figuration by the Catholic Church will be rehearsed in a first project by Rudolf Schwarz for the chapel of Burg Rothenfels am Main (1928) and confirmed at the church of Corpus Christi in Aachen, Germany (1929/30), in a sense of geometric rigor and decorative austerity that will lead Guardini to comment not to be a void but rather to a tremendous silence. The images excesses of the past are acknowledged, the power of the word is accepted, but symbolic communication is maintained even if it is rarefied and transposed from the representation of the divine to the experience in space where each of us confronts the transcendent. Although Schwarz’s work will take different meanings in the postwar period —especially in the strong expression that the construction system and materials will assume—, this church will be seminal in the architecture of the churches that are later built.

In this process of approaching God, through a spatial and symbolic representation free from the excesses of the past, perhaps the most productive result is the convergence between the two Christian churches as regards the physical conditions necessary for the celebration of the rites. That is, in essence, both defend solemnity, coherence and artistic conception as a means of representation and communication of the divine, or even experience of the transcendent (which in some cases approaches the experience of the sublime).

The construction and generalization of this new religious spaces, for historical reasons linked to the massive destruction of central Europe —both physical and social— will have particular expression in Germany where significantly the new churches and parochial spaces (catholic and Protestant) will express a new and necessary beginning. This is where modern architecture finds its opportunity, finally linking the constructive premises of functionalist modernity to a renewal of symbols left by the history of religions (incorporating the past and the present into a new visual synthesis). The truth and symbol of Christian theology will become inseparable from the architectural character of religious space and experienced as a unity involving all the senses (Havik and Tielens 2013).

**DESIGN**

In «A secular century», the text that opens the *AV* magazine on Sacred Spaces, from Gaudí to Moneo, Luis Fernández-Galiano (2002) suggests —with his known acuity— that the sacred spaces constructed in the twentieth century are better described as a product of architecture history than of the religions history. According to this idea, the architecture of sacred spaces in the last century would have been more focused on the disciplinary issues that followed it than in the response to the renewal of the sacred space due to the novelties of the liturgical movements of the same period.

However, if we consider the way in which modern architecture integrates the principles of German philosophical thought to which we allude, namely regarding the origin of the *expressive truth* or *structural truth* that Adrian Forty places in the German romantic movement, we find that the paths of these stories intersect in both directions (Forty 2000). Moreover, in the architectural interpretation of the liturgical renewal movements, architects will find the ideal support to experience new meanings for the
configuration and materiality of modern architecture. Again Forty (2000) gives us clues to understand these contaminations when he explains that interest in the character of architecture is a symptom of the decline of semiotic theories of meaning in favor of phenomenological analyzes of meaning.

Indeed, in the architecture of sacred spaces this theme emerges at the beginning of the twentieth century with liturgical movements that not only seek the renewal of prayer, but also constitute an ecumenical movement, in favor of reversing the divisions which began at the Reformation. One of its most architecturally significant consequences, in both Churches, will be the passage from sacred to secular space, which gives religious space a broader functionality (as a meeting place) and an abstract spatial symbolism open to different perceptions of the divine to see, feel or invoke God. This new mental construction of God thus legitimates multiple interpretations which allow that a self-evident constructive system and a simple wall without coverings, can signify not only rigor and perenniality, but also poverty and despoiling; or that the light can emphasize in its clipping, the forms of space and its hierarchies and, as well, could legitimate the relation with the transcendent — the axis mundi of Norberg-Schulz— in its thickness, aquisity and sometimes even sonority.

It is in this connection between architecture and the interpretation of the new liturgy that constructive systems and materials gain new meanings. Thus one can understand the fidelity to the constructive system imposed by the new materials as an inscription in primitivism that invokes the symbolic relation of the truth of the elements with the expression of truth in man, the adoption of abstract compositional systems supported by archetypal, types and models of the past and, finally, the adoption of an aesthetic of simplicity and poverty of great neutrality that brings the church closer to the common man. It is in this sense that it is suggested that the best architecture of the religious spaces of Modernity anticipated a research on the phenomenology of meaning (Forty 2000) which architecture would go through in the postwar period. There we find Louis I. Kahn with the aphorism «architecture is the reaching out for the truth» (Forty 2000, 289), Norberg-Schulz (1976) which suggests that character is both atmosphere and form that defines space, Pallasmaa (Havik and Tielens 2013) with the involvement of the senses and Zumthor (2006) with the natural presence of things.
In 1963, Lewerentz begins the construction of a church in Klippan, that constitutes a paradigm for this numinous representation to which Otto referred. In the first place the elementary construction, made solely of brick with an assembly process at the same time simple and intriguing. Second, the contact with the surface, as a guide to a space that requires physical proximity because it is obscure, silent and empty. Only water and a few grains of light give us the slow perception of space and time. Ancestral catacomb, universal modernity. Pure emotion (Fig. 01-02).

Another important aspect to understand 20th century religious architecture meaning was the fact that the two main Christian Churches had made texts with guidelines for the construction of sacred spaces. Not only do they constitute directives for the path that led the architects to find new forms of contact with the transcendent, they also evidence the intersection of both churches in what concerns the essential of construction, namely in material and symbolic terms.

This crossroads of influences was found at the beginning of the 20th century in the 2nd Protestant Conference on Church Architecture that took place in Dresden in 1906 under the motto «The Liturgy as a Client» (Stegers 2008). There, it is defined from an early stage a program that frees the architecture of the sacred spaces of the styles. Shortly afterwards and unsurprisingly, the Catholic Liturgical Movement that is created in Rhineland and Flanders results in Johannes Van Acken’s 1922 manifesto Christocentric Ecclesiastic Art. A Proposal for a Liturgical Gesamtkunstwerk, where three spatial characteristics are crystallized in the evolution of churches design to which Romano Guardini and Rudolf Schwarz duo will give meaning and form in the 1928 chapel mentioned above: nave free of pillars, reduced or nonexistent apse, altar in the center and near the believers. But it is not a question of seeking a functionalist or civil architecture, with no sense of the sacrum. On the contrary, as Guardini later points out, «the concreteness was removed from the sphere of the religious; so the form, the concrete fullness of the phenomena of the universe always became the most blurry, empty, abstract, and increasingly poorer sphere. And the sacredness withdrew from the world. (...) Religious life requires the utmost concreteness to be able to develop» (Guardini 1988, 52).

This renewal will have consequences in the Second Vatican Council (1962/65), which proposes new formulas for bringing the community closer to God. Among them, the purification of Christian worship, with the ritual losing the symbolic role of the sacrum to bring them closer to the common man acts, and the design of the churches that will give rise to numerous documents with building standards which, for obvious reasons, The construction of new churches, of the Italian Episcopal Conference (CEI 1993), must be highlighted. In this script, which will serve as a reference for many of the churches that were built in the last decade of the twentieth century, we are interested in highlighting the suggestion of an entrance through a portico, a threshold that serves as a passageway but also a filter in relation to the urban context, the maintenance of a principle of spatial sequence in the access to the sacred place and above all, aesthetic principles or values as the criterion of truth to which the criterion of sobriety, coherence and valorization of artistic conception should be added.

In this context, church designing —like any other building— summons both the history of architecture and the response to a program: a ritual action, deeply symbolic that rests on the spatial order to which the liturgy gives meaning. This is what prevents the architect from falling into the arbitrary. But the construction of form and its meaning, which underpin the religious collective memory of a place (Halbwachs 1967), remains in the intangible of artistic creation. Its character is only intelligible by experiencing the sacred place or space, and that’s why the physical experience of the places is so essential to architects and so decisive for construction of sacred spaces.

CONSTRUCTION

Among many approaches that could been taken to explain how contact with some religious architecture confirms this text point of view, two itineraries in the universe of Gunnar Asplund and Sigurd Lewerentz are imposed as unavoidable in the design of the mortuary chapels in Vila Nova de Gaia (Portugal): the Woodland cemetery of Stockholm (1915/40) from
both architects, and the Klippan church (1963) from the latter (Fig. 03-04).

Perhaps the most relevant aspect in these two last works is the surprise of the revelation or otherwise, the unexpected with which they confront us: on the one hand by the refusal of those spaces to photographic capture that could explain them (especially the church), and on the other hand to the requirement of a sensory perception that clarifies the space between the object and the observer: and with it a rationalization of the cultural processes that always interpose between one and the other. Both put us before the requirement of physical participation, contemplation and interpretation of the signs that they invoke. Only there can we understand how the contact with classical architecture is recycled, reconstructed and transformed, imbuing the modern project of an ancestral memory, symbolic, that is perceived in the paths, materiality, surface texture and light. There we can recognize both the paths of Greek stoa, fragments of classical buildings, the architecture of the roman catacombs, the lamps that illuminate the mihrab of the mosques, as well the largest and most radical abstraction. The sense of place, space, matter, and constructive systems discovered there became a knowledge legacy of infinite resources.

1. Space

The place of the mortuary chapels is special. It is located in a tree-lined street which is the access to the parochial church (1704) and has on the other side, in a lower level, the cemetery. As in the surroundings, the lot presents irregular morphological characteristics and small dimension, forming a trapeze whose main side is defined by the street (Fig. 05-06).

Signaling the territory was assumed as an act of urbanization that would contribute to its development. Therefore, more than the creation of a religious sign or mark (which it also had), it seemed important to design a building that would give rule to the public space and reinforce with the longitudinal sequence of its volumes, the dignity of access to the existing church. In this sense the buildings will assume a civil character and only the ground where they land is marked, sacralized with a cross which, as I discovered in the Woodland cemetery in Stockholm, signals the way. «All sacred space implies a hierophany, an irruption of the sacred that results in the detachment from a territory of the surrounding cosmic environment and makes it qualitatively different» (Eliade 2000, 40).

In these buildings one can also understand how the experience of contact with classical architecture
Fig. 05. José Fernando Gonçalves. Mortuary Chapels, Vila Nova de Gaia (Portugal), 1994/97; external view.
Fig. 06. View of the entrance.
Fig. 07. Plan
could be transposed into the modern project, or if one want, we can follow the way in which the designer’s memory conveys a specific knowledge that is only possible in the contact of the body within the space. Materiality, texture, light and time are the basic elements, founders, that both architects carry with evidence.

In the mortuary chapels this influence is found, first of all, in the occupation of the lot, characterizing the building as a set of volumes—a chapel of celebrations and two chapels for wake—connected by a wall/gallery where the support infrastructures are integrated. Outside, in green space, four magnolias and the cross signal the place.

Secondly, the strategy of the passage between the inside and the outside does not differ much from this classic experience found in the paths of the Swedish cemetery. The wall and the portico that creates the spaces of mediation and imposes a time for the discovery of the interior space are elements that are repeated. The access is carried perpendicular to the road in the alignment of the entrance of the cemetery and allows, privileging the entrance by the Gallery, to gain space and time of route until the zones of cult.

2. Light

The sliding door, is a cosmos of the ajar, as Bachelard said (1984), a threshold that sacralizes the access to the chapels and disconnects them from everyday life. The entrance way requires the transposition of several thresholds that end for each visitor in one of the mortuary chapels where the body is veiled. In this way we pass the ajar door through a small and low space, we walk in a penumbra gallery of great height, we transpose again a low space to enter the chapel of worship. In the opposite direction the gallery takes us directly to the chapel of celebrations. From one to another we repeat the principle used by Lewerentz at Resurrection chapel on the Woodland cemetery, creating a processional path that places the exit door somewhere else, in a continuous movement that proposes to believers a path that doesn’t go back (Fig. 08-09).

The time needed to understand space is thus another decisive factor in drawing: the process of sensory mediation between the inside and outside is associated with the sense of order conferred by the processional rite so characteristic in the Catholic Church.

Inside the space is enclosed, it is defined with precise contours, as an anchor for the man who is confronted with the incommensurability of the universe. One enters the religious space as if one enters oneself in the existence (Bachelard 1984). That is why the space is empty, only the vertical light of skylights or that which falls flush to the ground by the windows oriented to the West, establishes the contact of the interior with the outside, with this immensity of the sky and the earth, in a dialectic that reinforces the interior condition of religion and places us before ourselves. In addition to a possible glimpse in the gap between the chapels, there is no visual contact from the outside with the interior not only to prevent this revelation from the outside, but also to avoid any contact with the present outside.

In the chapel of celebrations space accepts the immutability of the distribution and organization of rites, prayers and dogmas as an essential factor to the collective memory of that particular religious group. But the geometry of the walls and the emptiness of space remove rationality and poetics from the Church of Light (Tadao Ando, 1987/89), and from La Tourette church (Le Corbusier, 1956/59) the principle of material and tectonic austerity. Purposely without any religious sign, only the vertical light suggests the relation with the axis mundi and therefore refers to the transcendent. The altar, also empty, obliges the gesture of set the table for the Eucharist, with the sense of refounding the place and preparing the ritual every time it is used.

In the mortuary chapels a cross resembles Christ, the rite and a place in direct relation to the idea of the resurrection that establishes the way to God. Each one has a window orientated to the West that allows the contact with the outside near the ground, a horizontal light that represents the concrete world of action of the man (Norberg-Schulz 1986). In the first chapel, four white-flowered magnolias resemble the ephemerality of life; In the second the travertine wall recalls its permanence.
Fig. 08. José Fernando Gonçalves. Mortuary Chapels, Vila Nova de Gaia (Portugal), 1994/97; gallery.
Fig. 09. View of the chapel.
Fig. 10. View of the chapel.
3. Matter

This classical influence also leads to constructive options of great elementality, tectonic sense and despoiling to accentuate the religious moment:

In the chapel of celebrations and gallery, the apparent reinforced concrete adapts itself to the desire for material austerity and a noble constructive aging, that resists to the different requests of use. The floors are built with stone in the circulation areas and have wood in the central area (Fig. 09-10).

The mortuary chapels are lined with roman travertine on the outside, stuccoed on the ceiling and walls inside and finished with wood on the pavement, looking for —with a greater constructive care— a characterization close to the meaning of a reliquary.

The visible coverings are made with copper, looking for a quality and dignity of finishes consonant with the meaning of the building. This metal, also applied to the entrance doors of the building, allows a material aging that ennobles it.

NOTES
(1) «The vertical axis, the *axis mundi*, is therefore an archetypal symbol of a passage from one cosmic region to another» (Norberg-Schulz 1986, 223).

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Fig. 01. http://bit.ly/2AT0gZ1.

Fig. 02. Pedro Santos

Fig. 03-04, 07. José Fernando Gonçalves

Fig. 05-06, 08-10. Luís Ferreira Alves

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