

Incarnations. Bishop Edward King Chapel. Cuddesdon

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Situation

First there was the beech tree, as big as a planet, on the brow of the hill. It is 300 years old; some say the biggest beech in England. Its spreading boughs reach out, encompassing everything on the site, holding the straggle of buildings together.

Beneath it, the hill sweeps away down towards Garsington. Attending the great beech stands a ring of copper beech, scots pine, chestnut and holly. They surround a loose clearing in which the ground is alive with the flickering shadows of sunlight cast through leaves.

In 1854 Bishop Samuel Wilberforce chose this site for his theological college and G.E. Street, the Arts and Crafts architect, was asked to design buildings in the Neo-Gothic style for this sacred setting. He built a stone range of turrets, arches, dormers and elaborate oriels, which is now affectionately known by the students as 'Holy Hogwarts'. It has developed into a serene situation for the preparation for ministry. The students are often older, with children, and the place is alive with their voices.

Recently, the Sisters of St John the Baptist at Begbroke, on the other side of Oxford, realizing that their numbers were dwindling, decided to sell their house and move to the College. The wrench of leaving home was ameliorated by the possibility of placing themselves in the heart of a vibrant religious community. It was agreed that the witness of their prayer would create a rich compliment to the theological training taking place. The Sisters offered to use the proceeds of the sale of their house to bring the gift of a new chapel to the site; one in which the whole community could come together for training and worship. The chapel would need to provide for individuals to come alone for private prayer, somewhere for the Sisters to perform their office, a space for teaching, and a setting for the community to come together and celebrate their shared calling.

Type

We were asked to design a collegiate chapel in the manner of Oxford or Cambridge colleges. The form of a collegiate chapel is antiphonal, with the community facing each other across a common space and praying back and forth in bid and response. Often the open floor between the facing stalls will contain a lectern from which the gospels can be read and prayer can be orchestrated.

Collegiate chapels probably have their origins in late-medieval chantry chapels. These developed in response to the desperate events of the fourteenth century, culminating in the Black Death, which generated a newfound interest in the idea of purgatory. Wealthy individuals, concerned for their souls, would leave endowments for the construction of a chapel and the establishment of a praying community with the purpose of initiating a cycle of prayer to speed their way through the rigours of purgatory. The form of chantry chapels was borrowed from the choirs of cathedrals. There was no nave attached because this essentially private building type had little need for a place of public assembly. The chantry chapel naturally developed into the collegiate chapel, where the perpetual praying community became a community of funded scholars. New College Chapel in Oxford (substantially remodelled 1789–94) is an early example of this development and it is interesting that the building was originally intended to have a public nave (1), the remnants of which are still visible.

In typical collegiate chapels, the altar was mounted on a slightly raised podium to the east of the choir stalls. It was often built against the end wall so that the priest faced east to address it. This effectively set the Liturgy of the Eucharist away from the central cluster of the worshipping community. The priest would mount the podium, leaving the community behind, and face away from them during the Consecration.

At our early meetings with the College community we discussed the advantages and limitations of the collegiate chapel as a liturgical form. The antiphonal arrangement creates a space of unique intimacy, with worshippers able to see each other clearly across the central floor. One drawback is the indeterminate nature of the purely parallel arrangement. It could be longer or shorter; it does not define its own limits. A priest, describing collegiate form to me, held up his hands to illustrate the parallel arrangement. Then, almost unconsciously, his palms and fingers began to bow out and curl in to a mutually cupped shape, 'but we would like more sense of community' he said. We began to draw this slightly bowed reciprocal arrangement to see where it might lead. In doing this, the ends

of the stalls began to draw in and, with modern liturgy in our minds, we moved the altar completely into the central space.

This produced a promising arrangement, two shallow curves of seating facing each other across a contained ground marked with two sites, one for the lectern and one for the altar.

It was then a further simple gesture, in a sketch, to sweep the curve around and enclose the whole space. The figure that was produced was a shallow ellipse containing two marked sites as dual foci. This moment in the design process is profound and complex. The figure of the ellipse is loaded metaphorically, theologically and architecturally. Once it was drawn, it opened up a constellation of meanings. So, there it was, the centre of the project; a conversation about liturgical form, an explanatory hand gesture – modified – a sketch to capture it – modified – the emergence of a geometrical figure and then a flood of associations within which the whole building was immediately present in its possibilities, but wholly unresolved.

Writing, as a form, does not permit the description of simultaneous illumination of this kind. It insists on a one-after-the-other quality, as though design was a sequential procedure. In practice, multiple ideas become immanent all at once, even though they are not yet entirely apparent. They are layered up in the space of multiple possibilities offered by the project. What is written next in sequence emerged all at once as a dense tapestry of possibilities and the design task was to work through it to create a semblance of coherent meaning in built form.

Figure

In the High Renaissance, artists pursued an understanding of the world based on perfect geometry. From cosmology to anatomy, everything was subjected to an analysis that was intended to unveil the harmonious order underlying creation. Implicit in this was the idea that the cosmos, the creature and the creator were fundamentally alike; each one could be understood as an aspect of the other. The circle, conceived as pure quantity, pure emanation, was the model of ideal perfection and therefore of God. It followed that celestial bodies and creatures would share this formal perfection.

The ellipse is a Mannerist figure. In Mannerist sculpture and painting, produced during the sixteenth century, a new understanding took hold in which bodies were no longer passive and static, but subjected to forces that attenuated their ideal form. Elongation, twisting and rotation were Mannerist tropes that introduced a new understanding of the world as a working out of form and force. To be embodied was to be subjected to forces and to be distorted by them. This was a significant change from an ideal conception to a contextual one, where form was a resolution of attraction and repulsion at the level of real interactions. This was an acknowledgement of a difference between realist observations and ideal proportions. The body lacks stable proportions because ‘all its members vary in length and size while in motion’ wrote Vincenzo Danti. 1 Ferdinand Hallyn, to whom I am indebted for these insights, observes that in Mannerism: ‘Form is an effect of embodied dynamic relations ... the law of the ellipse represents a submission to facts far removed from a dreamed of perfection.’²

Hallyn beautifully traces the journey of Johannes Kepler, recorded in his narrative *Astronomia Nova* (1609), from the Copernican model of planetary motion to one based on realistic observations. The shift in understanding of the human body in Mannerist art has its correlative in Kepler’s reformulation of celestial order. In both cases the change is from an ideal model to a contextual one based on the observation of real interactions between objects and forces. The profound struggle for Kepler is to conceptually resolve the loss of an imagined ideal geometry in favour of what he could see. He described the departure when writing to Hieronymus Fabricius: ‘The difference is that you employ circles and I employ corporeal forces.’³

Kepler was able to conceive of the circle and the ellipse as different aspects of a single underlying order. They are both among a suite of opposing members of a group of forms derived from conic sections; these include the parabola, the hyperbola, the circle and the ellipse. Under analysis, the ellipse can be understood as a circle whose eccentricity moves towards that of a straight line. If the circle can be understood as pure quantity, the straight line is the embodiment of force: ‘The same orderly motion is composed of both curve and straight line.’⁴ This conflation of circular motion and linear motion produces a union of opposites that Kepler associated with the submission of pure perfection to material embodiment. In other words, it became a representation of incarnation:

For if it was only a question of the beauty of the circle, the Spirit would decide with good reason for it, and the circle would be suitable for all bodies, principally for celestial bodies, since bodies participate in quantity, and the circle is the most beautiful form of quantity. But since it was necessary to rely not only on the Spirit but also on natural and animal faculties to create motion, these faculties followed their own inclination and they were not accomplished according to the dictates of Spirit, which they did not perceive, but through material necessity. It is therefore not astonishing that these faculties did not reach perfection.⁵

In Kepler’s new model the sun was conceived as the Father, occupying the mathematical and physical centre, itself the cause of motion. The Spirit was the action of the Father through the intermediate space between the sun and the planets. The orbits of the planets were seen as the realm of the living and the Son is incarnated as force

and motion. In this representation of the Trinity the ellipse creates a decentred centre. Hallyn suggests that in its 'mixture of curve and straight line, the ellipse signifies the submission of the creature to material necessity and its inability to attain total perfection'.⁶ It is, he says, a 'union of contraries ... a coincidence of antonyms in the nucleus of the oxymoron'.⁷

Significantly for Kepler the departure from ideal form at the level of geometry is resolved because the eccentricity of the ellipse gives rise to a higher beauty at the level of harmony. Here, at a raised level of intelligibility, 'celestial music is apparent only to the sun'.⁸ It is something that man cannot perceive directly, but must reconstitute through an act of the intellect. I would like to remember this observation later when I discuss another representation of incarnation, Rudolph Schwarz's conception of the Star at the heart of the worshipping community.

Plan

The elliptical enclosure of a central space has many antecedents in architectural plans, but the two that came most readily to mind were Gian Lorenzo Bernini's Sant' Andrea al Quirinale (1661) in Rome, where you enter onto the short axis, creating an immediate sense of intimacy, of being enveloped; and Rudolph Schwarz's St. Michael Church (1961) in Frankfurt, where you enter at the end of the nave at an angle to the principal axis. Schwarz combined an elliptical plan with an almost continuous high-level clerestory. I immediately thought of placing this carousel-like figure into the space between the trees and making a vessel for receiving the mazy light coming through the foliage. These two associations, geometric and sensual, linked a plan form to a promise of immersive experience.

I began to draw Schwarz's plan and tried to understand how the geometry was interacting with the liturgical arrangements. In a way, the conflation of a conventional axial nave arrangement with the ellipse did not seem to realize the power of the geometrical figure. I loved the two apses, his willingness to court ungainly plan forms in favour of a clustering around the altar. What I also became aware of was a strong connection between this church and the Chapel of St Benedict (1988) in Sumvitg by Peter Zumthor: the continuous clerestory above a high plain wall, the angled entrance doorway and the independence of wall and structure. Schwarz's plan has a clear elliptical geometry, while Zumthor's looks like a variation on an ellipse but it does not share its conic origin. It is more like a tricyclix, although he describes it as being like an eye, a manifestly Schwarzian conception. I observed that Schwarz had removed his structure to the outside wall, placing it just outside the ellipse, while Zumthor had responded by placing his – clearly independent – posts just within the walls, as though he was continuing an exacting discourse while subtly altering the terms. Zumthor's decision to move the columns from just outside to just inside was not a small thing, given the negative theology implicit in Schwarz's initial conception.

The independent structure was interesting to us for a number of reasons, as will become clear. We wanted to extend the conversation about the relationship between the structural frame and the enclosing wall, so we chose to place the columns within the elliptical wall, set the distance of an ambulatory away from the inner surface. This created a continuous circumambient space. It is reminiscent of early Christian martyria such as San Costanza (355) in Rome and, as Richard Sennet has observed, it opens up the idea of Christian ambivalence towards place.⁹ The continuous walk around an illuminated centre speaks of giving up home and wandering endlessly in search of God. *My heart is restless until it rests in thee O Lord.*¹⁰

A more practical advantage to the separation of an inner space from an encircling ambulatory is that it allows you to admit difference. Everything within the inner form of the structure can be geometrically singular, expressing the fundamental spatial idea. Everything beyond the ambulatory can express contingency and difference. We conceived a suite of attachments around the perimeter, each of which could enjoy its unique circumstances and respond to its own inner demands without an absolute obligation to a rigorous overarching order. We had a sacristy, a Sister's prayer room, a contemplative window, a niche for the Blessed Sacrament and an entrance porch.

The arrangement of the collegiate chapel form within an elliptical geometry allowed us to place the lectern and the altar at the two foci of the figure. In doing this, we allowed for subtly different readings of the same space. Within the range of Anglican Low Church and High Church worshippers, it might be possible for people to place themselves differently within the space. The Sisters could arrive in from their convent, entering by a doorway that immediately addressed the altar and they could sit in their own prayer space that looked across the chapel to the niche for the Blessed Sacrament on the opposite wall. This axis of attention supported their communal devotion to the Liturgy of the Eucharist and the consecrated presence. In contrast, a student from the College could enter by the main door and be presented with a direct view of the lectern with the Gospels lying open. They could then sit within the stalls so that their focus remained upon the Liturgy of the Word.

Synecdoche

The example of St Michael's Church in Frankfurt led us to the writings of Rudolph Schwarz. His book *The Church Incarnate* was an attempt to set down systematically a spatial order that was equal to the sacred liturgy.¹¹ In his description, the liturgy itself comes first. The enactment of the sacraments brings a space into being. That space is already illuminated from within. A built structure is manifestly present and yet entirely contingent upon the inner life of the liturgy that brought it into being. It is a profound meditation on the relationship between inhabitation and built form.

Schwarz put forward a set of plan forms, each of which embodied spatial ideas that underpinned the liturgy. I would like to describe one of these and show how it influenced the development of the inner space of our chapel. In particular, I would like to focus on his use of synecdoche as a way of embodying theological ideas. He speaks to us of the eye, the ear and the hand. The body, as we have seen before, is implicitly echoed in the cosmos and both are understood as manifestations of God.

Now the body is extended out into the worshipping community and therefore the church building: 'The congregation, or the church building itself, are [*sic*] the mighty holy body of the Lord.'¹² Schwarz makes demands on our spatial understanding. God is at once the church itself, constituted by the community, he is within the church at its centre and he is beyond in his own isolation. This concept of multiple, layered presence is a consistent aspect of his writing and it creates a constant discourse between within and beyond.

All this the Lord said when he said that he wished to be in the midst of those who gather together in his name ... he wants to bind their ring to mark out for them a sacred home, and he wants to be that light that illuminates every man who is in this world. And as the new sun he wishes to fill this world with light to its uttermost limits.¹³

Eye

Schwarz creates the extraordinary compound image of the star and the eye to embody this duality of within/beyond. "'Star" – that is primary streaming light.'¹⁴ This endless emanation outwards has its reciprocal form: 'The eye then is not a star ... but rather answer to it. It is circumference, dark, hollow and in readiness.'¹⁵ In the enclosure of the eye 'the light current from the outside and the dark from the inside would unite and together they would create the image'.¹⁶ This is embodied in the image of the circle (quire/corona) around the table with the cup and the candle: within/beyond, vessel/emanation. It gives rise to his first plan, a circle of people around the altar. The circle is at once an image of an eye and it contains many eyes that cross-stitch the space with their mutual sociable gazes. But the significant gaze of each person is towards the altar at the centre: 'All these human beings yield themselves into the centre point ... the light from the altar ... gives answer to the surrender.'¹⁷

The priest breaks the concentric evenness of the gathering by standing at the altar. His position implies a natural orientation and, being at the centre, his address must be outward:

[The priest] looks out to the East, into the openness Thus the altar is both apex and threshold, the centre and the place of transition Earth and world gather at the altar and in it they reach their end ... on three sides it faces the world and on the fourth heaven. ... The spot where the world turned to face eternity stays behind. Out from this spot a sacred way begins.¹⁸

This concurrency of within and beyond is clearly articulated in Schwarz's description of Leonardo da Vinci's painting of the Last Supper. It also carries a complimentary connotation of intimacy and isolation.

Christ is in the middle, he reaches out his hands to right and left and the disciple may rest on his bosom. But he himself looks to the open side into the remoteness of the Father before whom he enters in. Their prayers unite with his and they ask that the Father may grant fulfilment 'through Christ'. Thus, Christ is in the same room with his own and yet he is not – he belongs at the same time to another space, he is at once middle and mediator.¹⁹

The altar in our chapel allows the priest to stand surrounded by the community who may look to each other, but focus upon the altar. The priest faces east and, beyond the altar, a sacred way opens up, passing through an opening in the enclosing structure, out into the outer space of the circumference. It is this route that the priests will pass along if they are entering in procession from the sacristy.

Ear

If the eye/star duality embodies the relation between the community and the altar, there is a very different relationship between the lectern and the listening congregation. Schwarz uses the figure of the ear to describe this. He imagines a mother reading to her child:

She will one day be held accountable for having kept his ears clean, since she believes that these precise ears are part of the particular revelation given to this little creature. ... A body ever effected as speech and answer would not be difficult to believe in as an image or a likeness or as an answer to the Creator's invocation.²⁰

The reading of the scriptures in the modern liturgy is a reciprocal activity. Those who are listening may also have read the same texts alone in quiet and they receive the word with critical attention. The discourse of reader and listener sets up a different relationship between the lectern and the attentive audience than that we have seen with the altar. I chose to arrange the seating at the end facing the lectern to create a closed ring, a whole, in Jeanne Halgren Kilde's phrase, a 'corporate entity'. 'In this situation, God was understood as drawing much closer to worshippers, answering questions, explain things that once were mysteries.'²¹

Hand

'The hand can reassure, love and bless. Here being surrenders to being.'²² This image of communal feeling and intimacy typifies the figure of the hand. It represents the nearby and that knowledge that comes from closeness and touch, 'it sees the world from all sides'²³ but the hand also transmits weight to the ground through the bones and ligaments, so it signifies structure too. For Schwarz structure is the spatial idea drawn out into lines of force: 'The body is not primarily weight, but lightness – "power" which interlaces space on linear paths.'²⁴ The free flowing trajectories through which static forces are brought to earth are capable of expressing the spatial idea of the community of God.

This compound of ideas found expression in a free-standing timber frame held within the walls, separating the inner space of stillness and gathering from the external ambulatory characterized by wandering, all enclosed within a simple smooth vessel (Colour Plate 12). It is both a freely expressed structural-spatial idea and a container for a world of communal intimacy. The analogy to Schwarz's figure of the body is clear, 'We found the body in ever changing form, as hollow ball in relation to light, as linear scaffold in relation to weight.'²⁵ The eye as a dark chalice, open to the universe, arching round light; the hand for the nearby, grasping things, taking weight in curving lines back to the earth.

The persistent duality between within and beyond finds its most dramatic expression in Schwartz's description of the opening in the ring. This is where the polarization between intimacy and isolation is at its most stark. He describes the people bound in a ring around the altar, but the priest, their advocate, is looking out into the open, 'he gathers the centric movement and bears it forward ... into the open place'.²⁶ He calls this the 'open-star image'. That flow towards the centre takes leave of the inner area and flows out like a well spring: 'The earth has become the wellspring of the infinite. ... The people still possess a country, but it is slipping from them ... dropping away on all sides into the openness.'²⁷ This is a powerful image contrasting the tightly bound community, held together by their mutual gazes, with the brimming boundary of infinity surrounding them.

The form has an open place where the rings stand open ... the old form is preserved and yet it can no longer exist ... it must yet endure Living power streams from the sundered whole, the entire form begins to move out into the open, there to meet with emptiness.²⁸

'Here there is a gaping hole in the building. ... This gap is absolute opening, the ultimate rending, "nothing" more lies beyond it, here God's solitude begins.'²⁹ He resolves this paradox by seeing the whole plan as like the eye of God from which a sacred way proceeds, passing through a window, portal or threshold; what he calls 'a piercing of the world'.³⁰ On one side of this threshold is the world, inhabited by men, overarched by space, girdled by the firmament. In the openness beyond the altar lies the other world. The altar is the border between time and eternity. He acknowledges that the inner world is a place for decorum, for architecture, but he asks how we might represent the world beyond; what kind of image or scene might be adequate to this task? Here he produces one of his most powerful architectural ideas:

It might be best not to work out the image at all but instead to leave the structure with a rift in it. The open space would simply remain empty, a meaningful break in the ring. This could be intimated by leaving part of the wall utterly white. Not termination but unlocking and opening.³¹

In the chapel, the priest faces east across the altar, back along the processional approach route, flanked by the congregation. At the point where this view meets the encircling structure, there is a breach in the ring, forming a distinct portal. Beyond it is the plain white wall that arches out on each side, surrounding the whole ensemble. The expansive white surface, waiting for the play of light, is

both an enclosing chalice and a conceptually endless realm. Here we have tried to embody Schwarz's idea of an inner world of intimacy, closeness, visual and physical contact, girded by an enclosing frame, which opens out into an expanse. Here is God with us, and God's isolation, a within and a beyond.

Embodiment

The Church Incarnate provides a spatial model derived from the liturgy, but it says relatively little about how this might be embodied within a meaningful material context. There is something almost weightless about Schwarz's writing, even when he speaks of physical things. I wanted to find a poetically consistent framework for the making of the building that would be equal to Schwarz's liturgical vision. I looked to Gottfried Semper, because he has derived a way of thinking about material practice from an understanding of how human culture represents its own relationship with the world.

For Semper, the origin of architecture lies in man's intuition of a deep harmony in the world around him. The earliest embodiments of this are in dance, drama and ritual. These rhythmic, cyclical activities are then reified in ordered, rhythmic structures that give material form to the dance; he speaks of knots and garlands leading into activities like weaving. He associates our conception of architectural space with the first enclosures, which were woven screens. So, the activity of weaving is identified with 'the separation of the inner world from the outer world'.³² His conceptual insight is that architecture is a mimetic activity, but it does not imitate a fixed external entity—for example Nature—instead human manufacture is mimetic of human culture itself. Architecture is bound into the fundamental types of human making which, in turn, are mimetic of the attributes of human culture. In Semper's primitive hut, a woven screen is supported from a free-standing tectonic frame, which rests upon a stereotomic earthwork, which raises a platform above the ground to situate the hearth. The hearth is associated with metalwork and ceramics and it is the first focus of community; the fire around which we once gathered became the altar in the temple or church. The earthwork, the frame, the hearth and the enclosing screen are the four basic elements. They are associated with forms of material practice that are proper to each one: mounding, carpentry, metalwork and weaving. As architecture developed through history, these motifs were transformed through changing material practice, but they retained their underlying ordering principles. In this way, for example, the endless variations in masonry bonding can be related to the fundamental motif of weaving.

I used these four motifs to embody the luminous-spatial conceptions offered by the writings of Schwarz. The altar/star image is fused with the idea of the hearth. The community is gathered around a stepped earthwork, an elliptical amphitheatre set within the hill, made from poured concrete. They are held within an enclosing timber frame that stands, holding the roof and resting upon an elliptical earthwork. The frame reaches back to just touch the enclosing screen. Seen from within, it is a white wall, but on the outside, it is conceived as a stone tapestry created by a cropped and cut dog's-tooth bond.

The conflation of these two models brings me to a point at the limit of my own understanding. I am not able to say whether these are viable associations. Semper's hearth glows like Schwarz's star; it is both centre and threshold. For both of them, the sacred flame is the origin of sanctity, community and civilization. It is the first thing around which people gather and raise the need for enclosure. Schwarz's conception of the white wall as an opening into eternity is brought together with Semper's motif of the woven screen separating the inner world from the outer world, but for Semper the motif of weaving must be present on the *inner* lining of the wall notwithstanding the solidity of any material behind it. The motif of weaving carries the idea of spatial enclosure. In the chapel, the motif of spatial enclosure—weaving—is present externally, but the interior of the wall presents a representation of boundlessness. Semper himself deals with this by allowing exceptions to the weaving motif 'where the spatial enclosure exists materially but not in the idea'.³³ The earthwork is an interpretation of a mound or stylobate, meant to raise the hearth above the surrounding land. In the chapel, it is partly sunken and partly raised in order to situate itself on the hillside. It supports the free-standing timber frame in which I tried to embody the figure of the hand, bringing weight to the ground through the skeleton, the freely articulated curving lines tracing load paths. Here, with its apparent contradictions, is an attempt to synthesize a deep lineage in architectural thinking from Schwarz, through Semper, to Karl Bötticher's original Kernform: not static matter but a living maze of energy embodied materially in space: 'The material is aroused and compelled to demonstrate its own structural strength once it has been given a form that is appropriate to it and at the same time fits it to perform a space-creating architectural function.'³⁴

Analogy

I have described how the collegiate chapel is a liturgical form emerging from a continuous historical development of the choir. I have shown how we adapted it by enclosing its ends and incorporating the altar within the boundary. This developed into an elliptical plan with an altar and a lectern at the two foci. I have argued that the ellipse is a

Mannerist figure that, in its representation of form and force, can be understood as a manifestation of incarnation. The elliptical plan leads me to interpret the writings of Rudolph Schwarz with particular emphasis on his use of synecdoche to hold together cosmos, body, building and community. I have interpreted Gottfried Semper and Karl Bötticher in order to find a poetic principle with which to materially embody these structural-spatial ideas.

The last figures or incarnations I would like to describe are those ones that come from the world of known objects. They are the familiar figures that blossom out from the structural-spatial model as natural associations. This process occurs wholly within the design development, driving and being driven by the emergence of the fundamental architectural form. For Bötticher:

The structure is an invented form without a model in the outside world. (Architecture) joins the ranks of representational arts only after it has fulfilled the material nature of its task, related to structure, and has invented a system of enclosing space. ... It takes its symbols and art-forms only from those natural objects that embody an idea analogous to the one inherent in the members of the architectural system.³⁵

I differ in my reading of this because I believe that the associative figures emerge all at once with the structural-spatial system. We are figurative creatures and we think through association. However, I am drawn to his idea that the forms of inhabitation have a spatial-structural correlative that must find embodiment through representative forms and that these forms must enjoy an analogous relationship with the underlying conception.

The persistent underlying analogy that we carried through the project was that the building would be like a ship (Figure 6.2). Having read the brief, I took out a poem by Seamus Heaney.

*The annals say: when the monks of Clonmacnoise
Were all at prayers inside the oratory
A ship appeared above them in the air.*

*The anchor dragged along behind so deep
It hooked itself into the altar rails
And then, as the big hull rocked to a standstill,*

*A crewman shinned and grappled down the rope
And struggled to release it. But in vain.
'This man can't bear our life here and will drown',*

*The abbot said, 'unless we help him'. So
They did, the freed ship sailed, and the man climbed back
Out of the marvellous as he had known it.³⁶*

The missing word here is 'nave'. In its origin, it is both the body of a church and a ship. It brings into play a long association between the ship and the Christian community. The image of the twelve disciples with Jesus on the Sea of Galilee epitomizes closeness and interdependence. From the beginning, I wanted to create a spatial equivalent to the phantasmagorical image in the poem, that you are at once seeing the ship from below and on the deck of the ship among the masts. The roof is profiled like the keel of a ship stretched taut between the two foci of the ellipse. Our first design shows a crucifix suspended over the altar, alluding back to the suspended anchor, itself an image of Christ appearing among his people.

'And the Word was made flesh and dwelt among us'. (Jn 1.14)

Manifestation

We made a drawing together after we had completed the construction documents for the building, but before the builders had commenced work on site (Colour Plate 14). We poured smooth lime plaster onto the floor of a room in the manner of medieval masons and we drew out the plan of the building. We began by manually constructing an ellipse on the floor using pins and threads, then five of us worked for a week with coloured wax pencils marking out the lines of columns, walls and windows. It was a contemplative exercise that allowed us to spend time in the still point of the project before it turned again from conception to construction. It took us away from our computer screens and allowed us to engage our whole bodies together in making something. The ache in forearm, wrists and fingertips that came from the intense physical concentration of drawing was something we had almost forgotten. We dressed in paper decorator's outfits to preserve the drawing on which we knelt all day. It made us feel like acolytes.

The following week the builders cast an ellipse in the ground beneath the beech tree. It was formed from concentric seating in the manner of an ancient amphitheatre and for a short time a powerful intermediate architecture existed. It was a platform in the landscape that needed nothing more to create a sacred place. Only the raw reinforcement bars rising out of the low walls suggested its incompleteness. The surrounding walls were made from Clipsham stone laid in a staggered dog's-tooth bond. Each block was cut and then broken to create alternating smooth and rough faces. They changed direction at every course. This created a dense tapestry enclosing the ellipse. I remember coming to site throughout a bitter cold and wet winter and watching the Polish masons painstakingly laying and aligning each tiny piece. It was a patient act of great precision repeated almost

endlessly. When they placed the encircling crown of stone window mullions on to the top it was an emblem of their own slow triumph. An architect can conceive of something entirely beyond their own ability, then watch as it is brought into being by the immeasurable skill and labour of others. I didn't want the construction of the building to end. I wanted to keep coming back to watch its unfolding and to hold and slow this fugitive state in the life of the building.

We met and talked to our clients regularly as the construction continued. The Sisters were always interested in the exact design of their prayer space. If you live and pray in a small community you are aware of tiny nuances of proximity and mutual interaction. The furniture had to sustain these women in a close container so that they could forget the small irritations and discomforts of the body and move into the open space of prayer together. During the design process, I sat with them while they sang their office and I felt that the fragile timbre of their joined voices was something that might be lost from the world and that this acoustic needed to be held and treasured.

Paul Gilleron, our acoustic engineer, made a digital model of the chapel's acoustic properties. He analysed the resonance of the container in relation to the speaking voice, favouring clarity and the singing voice, wanting a little resonance. He quickly confirmed Christopher Wren's observation that columns are very good for the acoustics of churches. They scatter the sound as it travels out towards the encircling wall and again as it returns back in towards the centre. This breaks up any points of focus. We made a paper model that you could wear on your head with Paul's headphones, so that you could look into the interior while you listen to sounds being played into the acoustic simulacrum (Colour Plate 15). Then we all went out into the ring of encircling trees on the site and took turns to wear it and experience the dappled light coming into the interior as we listened to human voices resonating within.

One of our most difficult challenges was to allow the wooden structure to weave together seamlessly. Only one joinery company could make the invisible steel connections hidden in the joint that would allow an easy transition between structural members. These connections were a lot more expensive than any of the alternatives that would have produced a visible boss on the joint. We presented the two options to the client and asked them to decide. The Sister's bursar gave us a little lecture, saying that in a lifetime of accountancy he had never been asked to spend such a large sum making a tiny object on a distant, high ceiling become invisible. How could such a request be justified? 'Then', he paused, 'I think of myself at prayer.' The invisible joint was approved.

Not everything was decided as I would have wished. I did not succeed in persuading our client to make the altar and lectern from ceramic or metal. This would have completed Semper's scheme and allowed the material itself to embody the origin of star-fire-hearth-altar. The only successful manifestation of this idea is in the tabernacle where the wooden box has a blazing inner lining of brass. It is positioned beneath a sky-facing northern aperture that sheds a bluish light onto the glowing interior. My intention was to create a visual fizz between the colour temperature of the light and the glow of the metal.

The position of the crucifix was the subject of an extended debate. In my original design, it was a slender object suspended over the altar, thus echoing the anchor dropped from Heaney's ship in the air, analogous to Christ descending among his people. The client initially placed the crucifix outside the encircling structure on the elliptical wall behind the altar, since this approximated to the end wall of a traditional linear nave. We asked them to reconsider this because, in Schwartz's spatial model, the white wall beyond the breach in the structure was intended to represent the boundlessness of God's creation beyond the tight ring of the worshipping community, not the symbol of Christ among us. This cross has since been removed from the wall. For now, there is only a small wooden cross standing upon the altar. I wonder whether the cross, the altar and the lectern were too close to the client, too full of meaning already.

Often, during our discussions, the Sisters asked me if we could put some stained or coloured glass in the windows. I firmly rebuked them, saying that only the plain light flooding through the tree canopy, captured in the continuous clerestory, was needed. They conceded, promising to think and pray about it. Meanwhile, we needed to ventilate the building by putting small glass louvres into the high windows. We had no idea that the edge of the louvres would shatter the sunlight into a latticework of Newton's spectra. Now, when the sun comes out, the chapel is filled with lances of light of every colour. When I saw it first, I imagined that someone was playing a trick on me. Perhaps they are.

The building was a construction site for over a year and during that period it offered up many versions of itself: The dark elliptical cave with a forest of scaffold within; the roofless structural frame holding you aloft like an airship floating above the trees; the moment the delicate keel of the soffit was laid upon the frame; the lime plasterers lying on their backs under the hull of the roof pressing and spreading the thick mixture into the boards; and the moment the trembling wooden frame was fixed back to the walls and it locked taut like a bicycle wheel. I remember, as the chapel neared completion, I went inside and, finding myself alone, I sang out loud.

I have sometimes been asked whether this building has too many metaphors, is too dependent upon my readings and whether it needs them for its architectural presence. I would answer that every church is always a body, always a ship, always the cosmos and always a clearing. These figures have emerged through centuries of liturgical practice. I needed them to bring the building into being, but now it is built, I can part with it and these figures will

remain latent within the ensemble, waiting to be imagined again by someone who has never read this piece. When we handed our building over after a Candlemas service in the February darkness,

the priest lit a single flame in the dimmed interior, it was passed through the hands of all the people who had brought the building into being, each lighting their own candle. For a moment we were all there, visible to each other in the hundreds of wavering lights; then we filed out in procession to stand in little groups beneath the great beech tree and slowly disperse into the night.

Notes

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- 2 Ferdinand Hallyn *The Poetic Structure of the World: Copernicus and Kepler* [trans. Donald M. Leslie] (New York: Zone Books, 1990 [1987]), 209.
- 3 Hallyn, *The Poetic Structure of the World*, 212.
- 4 Ibid., 180.
- 5 Ibid., 179.
- 6 Ibid.
- 7 Ibid., 182.
- 8 Ibid., 209.
- 9 Richard Sennett, *Flesh and Stone: The Body and the City in Western Civilization* (London: Faber & Faber, 1994), 146.
- 10 St Augustine's Confessions (Lib 1,1-2,2.5,5: CSEL 33, 1-5). See
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- 12 Schwarz, *The Church Incarnate*, 8.
- 13 Ibid., 56.
- 14 Ibid., 12.
- 15 Ibid., 17.
- 16 Ibid., 18.
- 17 Ibid., 44.
- 18 Ibid., 68, 80.
- 19 Ibid., 67.
- 20 Ibid., 23.
- 21 Jeanne Halgren Kilde, *Sacred Power, Sacred Space: An Introduction to Christian Architecture and Worship* (Oxford University Press, 2009), 113.
- 22 Schwartz, *The Church Incarnate*, 18.
- 23 Ibid., 19.
- 24 Ibid., 22.
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- 27 Ibid., 74.
- 28 Ibid., 76.
- 29 Ibid., 83.
- 30 Ibid., 80.
- 31 Ibid., 89.
- 32 Ibid., 27.
- 33 Gottfried Semper, *Style in the Technical and Tectonic Arts; or, Practical Aesthetics* [1860–2]) (Los Angeles: Getty Research Institute, 2004), 188.
- 34 Semper, *Style in the Technical and Tectonic Arts*, 154.
- 35 Karl Gottlieb Wilhelm Bötticher, 'The Principles of the Hellenic and Germanic Ways of Building', in Wolfgang Hermann ed., *In What Style should we Build? The German Debate on Architectural Style* (Los Angeles: Getty Research Institute, 1992), 147–61, 163.
- 36 Seamus Heaney, 'Lightenings, VIII', *Seeing Things* (London: Faber, 1991), 62.
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