

Joseph Connors, “Un teorema sacro. San Carlo alle Quattro Fontane”, in *Il giovane Borromini. Dagli esordi a San Carlo alle Quattro Fontane*, ed. MANUELA KAHN-ROSSI, MARCO FRANCIOLLI, exh. cat. (Lugano, Museo Cantonale d’arte), Milan, Skira, 1999, pp. 459–474.

S. Carlo alle Quattro Fontane, called S. Carlino because of its small size, or S. Carlitos by its Spanish patrons, was Borromini’s independent commission and one that stood close to his heart for his whole life. He won the commission when he was 35. He built the church between ages 39 and 45. At age 51 he came back to it to tell the monks his life’s story. At age 61 or 62 he conceived a project to publish the church, and did a series of drawings revealing the secrets of its geometry. At age 66 he began the facade, the most musical and movemented of all his works. He was so fond of S. Carlino that at 67 he asked to be buried here and began to plan a high altar chapel in the crypt. When he died at 68 the facade had reached the level of the main cornice; it was finished a decade later by Borromini’s incompetent nephew.

The interior of S. Carlino is the most powerful expression of Borromini’s plastic architecture. Arches jump from pier to pier, bent in permanent torsion. Because the space on this tiny site was so constrained there was no question of having a normal Greek cross, with four equal arms. Instead fictive space was suggested by *nicchioni*, big niches with optically adjusted coffering that makes them seem deeper than they are. The cupola too is covered with coffering, like a malleable net stretched over the surface. The source of the coffering design comes from a woodcut in Serlio, but the plastic quality as it stretches over the surface of the cupola is entirely Borromini’s own.

One can see so many references to St. Peter’s that S. Carlino comes to seem like a St. Peter’s compressed into a tiny space, about as big as one of the piers of St. Peter’s, into which (in a famous comparison first made in the early 19th century) it could all fit. But at St. Peter’s the piers are massively solid; here the piers are pierced by doors and windows and hollowed out with chapels behind them. The way the columns follow the curved contours of the *nicchioni* has reminded many visitors of the flow of space in S. Lorenzo in Milan or of the vestibule to the Piazza d’Oro in Hadrian’s Villa.

But maybe the best way to understand S. Carlino is to compare it with a church that is at first enormously alike, but then in the end quite different. This is the chapel at the Chateau of Anet in France, built by Philibert Delorme in 1547-55. Borromini could easily have known it from the prints published in 1567. Anet too is a Greek cross compressed into a tiny space, and it too has a shallow cupola with perspectival coffering. It also has pierced piers with hidden spaces behind them, and like S. Carlino each pier has three niches that spill over from the face onto the sides.

But if Anet is a source for S. Carlino, it is a source assimilated and then cleverly subverted. Anet is all discipline; one has no trouble telling the arms from the circular crossing. In contrast S.

Carlino is all flow. One would be hard put to say for sure whether any part of the interior, say a niche or a column, belongs to the crossing piers or to the arms. In Anet we are standing in a classic space, in S. Carlo we are inside an enigma.

The riddle is made more complex when we try to assess the social level of Borromini's architecture. Is this a rich church, or a poor one? What does the architecture have to do with the mission of the order that built it, unshod Spanish monks of the Trinitarian order dedicated to the ransom of captives? Indeed, a perceptive critic named Andrea Comolli, applied a very harsh judgment to it. Writing in 1792, he said that the architect of S. Carlino did not know his history, in particular, the history of the penitent St. Charles Borromeo. The many *capricci* that he worked into the ornament would be better in the cabinet of a lady of fashion ("una galante Madama"), than in a church dedicated to a grave and saintly archbishop.

So: unhistorical, impertinent, capricious, feminine; Comolli was writing in the anti-rococo spirit of the French Revolution. We can dismiss him as unsympathetic if we want but he poses an interesting question, namely, what is the social meaning of this overloaded little church? Who were these monks and what were they trying to express? Was Borromini's darling their albatross? In the search for an answer we might begin very far from Rome, with the real mission of the Trinitarian monks, in the prisons of Algiers.

Pirates and Redemptions

Towards the end of the first part of *Don Quixote* a stranger staying in an inn with the Errant Knight tells his story. This is the famous "Captive's Tale." The narrator had been a soldier serving on a galley in the fleet of Don Juan of Austria when he was taken captive at Lepanto. Fifteen thousand Christian slaves were freed from the oars on that happy day, says Cervantes, but this soldier was unlucky enough to be taken by a Moorish squadron that escaped destruction. Set to the oars in the waters around Greece, traded and bequeathed to various masters in Constantinople, the soldier finally found himself a prisoner in the infamous prisons of Algiers, the baños.

The Captive's Tale is an improbable romance of love at first sight, trust between prisoners, and successful mass escape, with the help of a beautiful and wealthy Moorish princess. When the captive and his friends finally reach Spain after years of harsh captivity they kiss the earth, but they see all around them a coastline depopulated by almost daily raids, and inland cities where vigilantes ride out at the slightest danger signal. In other words they return to a country where slave raids were an unhappy fact of life.

Cervantes, though he romanticized conditions in the baños, wrote from firsthand experience. He himself had been taken prisoner while returning from Naples to Spain in 1575 and spent four years in Algiers. At last he was ransomed by Trinitarian monks, at considerable expense, since

he was believed to be an officer. In gratitude he chose to be buried in the Discalced Trinitarian church in Madrid. The church was rebuilt in 1673 and the tomb lost, but “las Trinitarias de Cervantes” is a national monument.

The plight of the captives was terrible, but like Cervantes they could be ransomed. At the beginning of the 13th century several smaller religious orders and two great ones were founded for the redemption of captives. The Trinitarians, Cervantes’ heroes and our own, were begun in 1198, and their main rivals in the ransom business, the Mercedarians (Merced), were founded by Peter Nolasco in Catalonia in 1218. These were the last of the great medieval orders to be established before the coming of the mendicants in the 1220s.

The Trinitarians were founded in France by a young Provençale Theologian, Jean de Matha, who had a remarkable vision during his first mass:

Vidit majestatem Dei et Deum tenentem in manibus suis duos vires habentes catenas in tibiis, quorum unus niger et deformis apparuit, alter macer et pallidus.

He saw the Majesty of God, holding in his hands two men chained at the ankles, one black and deformed, the other white and thin.

The message was obvious. He should found an order for the redemption of Christian captives. He immediately set off for Rome to seek papal approval. Innocent III had his doubts but was won over when he was vouchsafed the same vision. Jean de Matha then toiled for years ransoming captives and propagating the order. He died in 1213 and was buried in Rome on the Coelian Hill, near the mosaic icon (1209-13) that shows his vision. In the mosaic the “Maiestatem Dei” is shown as Christ Enthroned. The early sources stress that the order was founded not by any man but my God alone:

Hic est ordo approbatus
Non a Santis fabricatus
Sed a Solo Summo Deo.

This order which has been approved was not devised by saints but by God on High alone.

This hagiographical core was later buried in a wealth of hagiographical accretion. The vision was not any longer of the “Maiestatem Dei” but of a whiterobed angel. Jean di Matha was given a co-founder, Felix de Valois, and hence royal connections. On their way to Rome the pair stopped at the hermitage of Cerfroid, where they saw a snow-white deer (*cervus frigidus*) with a cross between its antlers. The blue and red cross became the symbol of the Trinitarians, worn on the front of their habits. The deer can be found as an emblem on the facade of Borromini’s church, along with statues of the founders, Jean de Matha with the book of a theologian, and Felix de Valois with the royal crown of France, the hermitage of Cerfroid and the shackles of a freed

captive.

The Trinitarian rule prescribed that a third of the order's revenues were to be devoted to ransoms, hence their name, the Trinitari del Riscatto. The first ransom took place in 1199. The monks undertook money-raising campaigns that included freed captives acting out their plight in tableaux vivants. They were enormously successful in the coastal areas of France and the parts of Spain close to Moorish lands, but they also established monasteries far from the Mediterranean. The Rue des Mathurins (from Matha) still preserves the memory of their demolished church in Paris, St. Mathurin, where the whole history of the order could be read in a great cycle of paintings by a contemporary of Rubens, Theodore van Thulden. One finds an echo of this cycle in the pendentives of Borromini's church: the vision at mass, the miraculous redemption where the wind blew the Trinitarians back to Spain in a mere six hours.

But both on the facade and in the altarpiece we find an alien presence. St. Charles Borromeo, the archbishop of counter-reformational Milan, had no historical connection with the order and among his myriad good works one will not find any mention of redemption of captives. S. Carlo is there because he stood for the cause of radical reform.

In the later 16th century almost all the great religious orders underwent reform. Reform was not gentle suasion; it was convulsion. The prototypical reformer is St. Teresa of Avila who brought the age-old Carmelite order back to something approaching the conditions of austerity and devotion for which it had been founded. But the Franciscans, Augustinians, Trinitarians, Mercedarians and almost every other old order were rent by the onslaught of charismatic, radical personalities who advocated the removal of abuses and a return to primitive austerities. "L'asprezza dell'habito e nudità dei piedi" were the symbols of reform, and the new groups were called *scalzi*, discalced, even though they were went about with sandals rather than strictly barefoot. S. Teresa, Bernini's great statue, is barefoot.

The unreformed, or mitigated trunk of each religious order bitterly resented the reform branches and did everything possible to impede their growth. They resented the loss of recruits and erosion of established authority. Physical violence between reformed and mitigated was not uncommon. The *scalzi* aimed to found new convents; Teresa spelled out the strategy in detail in her book *The Foundations*. With enough new foundations the *scalzi* could become gradually independent of the mother order, first a separate province but eventually an independent order with its own general. In this process it was essential to build up a base of support in Rome, to build a house and church, to make contacts with the papal court. Thus Rome filled up with *scalzi*.

Reform struck the Trinitarians of Spain with special virulence in the latter 16th century. God's chosen instrument was monk of noble origins called Juan Rico Garcia, usually called by his religious name Juan Bautista de la Concepcion (1561-1613). He put on sandals and advocated a

return to primitive austerity and the old practice of setting aside a third of the order's income for redemptions. The Trinitarian establishment grew defensive and hostile. Juan Bautista set out for Rome. A campaign of denigration was set in motion. He went through a dark night of the soul. His writings are obsessed with demons who taunt him and try to obstruct his mission. But in 1599 he left Rome vindicated, with a papal bull approving his reform and charting a course towards gradual independence, if he could establish enough *scalzi* convents.

Juan Bautista, however, was no Teresa. The hollow unflinching gaze of the chosen prophet soon alienated most of his followers, who judged him "a rigorous, harsh and terrible man." He died in 1613 at age 52, wandering as an unwelcome guest from one discalced house to another. He was not beatified until 1819 and did not appear in an altarpiece in S. Carlino until 1822; he was canonized only in 1975. Given his ambiguous status, there was no question of Juan Bautista de la Concepcion appearing anywhere in the decorative program of Borromini's church. S. Carlo was his substitute.

The generation of the *scalzi* reform was also the heyday of the North African corsair. Intensified by the expulsion of the Moriscos from Spain in 1609, and exacerbated by the weakness of Spanish coastal defences, piracy grew far more intense than it had ever been. The "little war" with North Africa scorched the coastal populations. An elaborate network of trade stretching as far as Constantinople brought captives to Algiers, where they were thrown into the notorious *baños* and set to work on chain gangs, kept alive, but just, waiting for ransom. The government of Algiers was largely dependent on ransom money, and the redemptionists eagerly courted. They fought the apathy of a landlocked government in Madrid, but they also tried to thwart proposals that the money might be better spent on a fleet. As dangerous as the redemptionist vocation was, there was a necessary symbiosis between them and the pirates. And the scale of their operations was enormous. A recent book (Ellen Friedman) surveys the 53 redemptions carried out by the Trinitarians in which 9500 captives were ransomed in the two centuries following Cervantes. The last great redemption was carried out as late as 1769, a joint operation between the Trinitarians and Mercedarians as the sunset of their history.

The history of the order allows us to explain the figurative imagery of the church. But before we get to the design there is one nagging geographical question. Why did the Discalced Trinitarians want to build a church in Rome at all, far from corsair-infested waters, and if in Rome why here on the Quirinal Hill?

Scalzi on the Quirinal

The Quirinal was the old villa quarter of the city par excellence. In the Renaissance it was given over to vineyards and ruins. Humanists taught Greek in little villas in the area, or edited the work of the Roman agricultural authors. There were several great *Antikengarten* (Huelsen) with large collections of classical sculpture. For example, almost every statue in the Archeological Museum

in Venice comes from the garden of the Grimani family, near the present Piazza Barberini. The gardens of two other cardinals, Pio da Carpi and d'Este, were on hilltop sites later occupied by the Quirinal and Barberini palaces. By an old tradition known as the *lex hortorum* the gates of these gardens were open to the public, who could enjoy their allées of elm and cypress and bubbling fountains, where marble nymphs might lie sleeping. Amidst the hundreds of antique statues they might see an occasional modern piece, like Michelangelo's late *Pietà*, which stood in a grotto in the Bandini garden, a hundred feet or so from what is now S. Carlino.

Through the middle of this arcadia Sixtus V plowed his roads in 1585-90. The Via Panisperna cut a relentlessly straight course through hill and valley to point at his own chapel in S. Maria Maggiore, and his Via Felice (Sistina) cut the Grimani and Bandini villas in half in order to arrive at the same goal. "So much wringing of necks to lay out straight streets" said the newsmongers, who caught something of the aristocratic resistance to these thoroughfares. Sixtus's fountains brought water to this terrain and his tax breaks brought population. The street fronts were built up into little houses (Terborch view) with the typically Roman toothed edge, each house poised to expand at the expense of its neighbor. The intersection where the new Via Felice cut across the older Via Pia was decorated with Quattro Fontane or Four Fountains, each with its river god or goddess lying in a rustic cave, perfect villa fountains brought out of doors.

Another force was reshaping the area: wealthy pious women. In England the wealthy widow is usually tempted to found an almshouse or a college, but in counter-reformational Italy she is likely to take up the cause of the radically reformed religious orders or of the dynamic new orders. In Rome these tended to cluster on the Quirinal Hill. The widow of the Duke of Tagliacozzo split her large estate between the Jesuits (who would later build Bernini's S. Andrea al Quirinale on her land), and the Clarisse, reformed Capuchin nuns. An Orsini widow built S. Maria Maddalena for rigidly cloistered Dominican nuns, which she then joined. Parts of the Baths of Diocletian had been converted to a villa by the French Cardinal Du Bellay, but they underwent a second conversion when Caterina Nobili Sforza bought the villa and turned it into a monastery of the Foglianti or Feuillants, a newly reformed order coming from France. They turned a rotunda of the baths into their church, S. Bernardino alle Terme. Next door the sister of Sixtus V, Camilla Peretti, gave land for a convent of the female branch of the same order. Carolyn Valone has explored this phenomenon, "matrons as patrons," and traced its spiritual ancestry to the Roman matrons who devoted themselves and their fortunes to St. Jerome.

In the Renaissance there were only four churches along the Via Pia, but by the early 17th century there were twelve, with a dozen more in the nearby side streets. The old tradition of the villas, with their open gates, co-existed cheek by jowl with the new *scalzi* houses locked in strict *clausura*. The contrast could be stark, even in the same family. In 1627 Federico Cesi passed the summer in the Bandini villa, working on his scientific projects. But in the same year, a stone's throw away, his sister Caterina Cesi founded the convent of S. Teresa alle Quattro Fontane,

which she then joined in order to pursue without distraction her Teresa-like devotion to the Mystic Marriage to Christ with the Holy Nail. The spiritual worlds of these siblings and neighbors were as night and day, and something of this shizophrenia can be said to characterize the neighborhood at large.

Some of the *scalzi* movements who poured into the Quirinal had tremendous success while others drank in the end the bitter cup of failure. The key was to win friends at court, if possible supply a confessor to the papal family, and attract a wealthy patron. One can distinguish between the phenomenally successful *scalzi* in Rome, the medium successful, and the failures. The Agostiniani *scalzi* had the best of luck, attracting a papal nephew, Camillo Pamphilj, who built them a great church, S. Nicola di Tolentino, just a few streets up from Piazza Barberini. On the other end of the scale there were the Spanish Franciscan *scalzi*, who tried to make a go of it at the church of S. Isidoro but suffered miserable failure when the pope who favored them, Gregory XV, died after a brief pontificate.

In between there were the many *scalzi* offshoots who circled the Quirinal looking for approval, cutting the old villas into cloistered enclaves, building tiny churches, hearing the confessions of wealthy matrons. The meekest of the meek they might seem, but they were really famished leopards waiting for Opportunity to walk under their branch. Rome was essential to their strategy, but not without its dangers. When Teresa's representative Pedro de los Angeles was about to embark for Rome to plead the cause of the Carmelite *scalzi*, John of the Cross (saint and mystic poet) warned him, "You will go to Italy with your shoes off, but you will come back with them on." Something like this is what happened, under Borromini, to the Trinitarians at S. Carlino.

S. Carlino

The Trinitari Scalzi bought a house at the Quattro Fontane in 1610 and turned it into a makeshift church. They were proud to dedicate this storefront to S. Carlo Borromeo, canonized that year. They had many *scalzi* neighbors, Carmelites, Clarisse, even the French branch of the Discalced Trinitarians at a church called S. Dionigio (St. Denis). From this base the Trinitari Scalzi launched their first redemption in 1625, bringing back to Spain 52 captives from Algiers. They showed the world that, as far as redemptions went, the *scalzi* meant business.

Borromini enters the scene in 1634. He had served the aging Maderno faithfully up to his death in 1629. Even before Maderno's death he saw most of the major papal projects go to Bernini, and his chances to succeed Maderno as architect of St. Peter's wither. He did the drawings for Bernini's baldacchino. Together he and Bernini designed the Palazzo Barberini, with Maderno too old and too crippled to be of any use. There are details where one can clearly see the architect and the sculptor working in collaboration. The facade has a wealth of imaginative sculpture that can only be due to Bernini, such as the great Medusa's mask, the palladium, that says this is the

palace of Pallas. But the window of the upper story, where the volutes are set diagonally and seem to shape the space around them, are probably a product of the collaboration, and so is the great central door of the salone, where a pair of swans fight with the serpents of Medusa's hair.

Borromini's Graphite Drawing Style

Palazzo Barberini is where Borromini brought to perfection a great innovation in architectural draftsmanship, the pencil drawing, or to be more precise, the pencil presentation drawing. It is worth a brief digression to explore this invention. A small drawing of a doorframe Palazzo Barberini may serve to introduce the genre.

Even in this minor door Borromini insisted on elegant and complicated molding profiles, shown on the tiny plan. To represent the jamb moldings Borromini uses a technique of parallel strokes drawn with a hard, fine pencil. There are over 20 strokes per centimeter (twice the number on a normal metric ruler), and over 300 for each molding on each jamb. Where the moldings curve the strokes do too. To show a flat strip between moldings a hair-thin white line is left between strokes, as though the pencil had passed over a length of fine gold wire. Light is cast from the left, highlighting the door in such a way that the one jamb cannot be drawn as a mechanical reflection of the other. The discipline of the ever-sharpened pencil and the hairthin strokes is breathtaking. The drawing becomes a fine-tooled miniature of the door, faint but infinitesimally exact, a brilliant exercise in rendering *magnum in parvo*.

Where does pencil come from? It is not used by the great masters of the High Renaissance. Silverpoint, the dry stylus, and hard black chalk are all to be found in the early sixteenth century, but not graphite. Michelangelo, who uses all the traditional media with the greatest originality, does not know pencil.

Graphite is a new medium that came into use in the last third of the sixteenth century. It is first mentioned in 1564, the year of Michelangelo's death, in a German text (Johan Mathesius) that speaks of it as a "new and self-growing metal used for writing." The early graphite mines in England and Spain were guarded like goldmines, but the medium rapidly spread. In 1565 we have our first illustration of a pencil, called *grafio piombino*, which is praised as the draftsman's humble handmaiden, good for laying out drawings but destined to disappear underneath the final layers of ink and wash.

There were pencils in the satchels of the many Lombard architects and masons who passed back and forth between Milan and Rome. Pencil is ubiquitous, for example, in Montano's drawings. Maderno used pencil but only as the first step in the production of a beautiful, colorful artifact. When he took Borromini on as an apprentice, this is the kind of drawing Maderno expected him to produce: an outline in pencil, which is then covered over with colorful ink and wash.

It is in the unfinished drawings of Maderno's shop that we can study the pencil-bearing hand of Borromini at close range. In a drawing for a door in Palazzo Barberini, which Borromini abandoned half finished in 1630, only the left leaf was finished in ink. A little restless, he continued to sketch freehand pencil ornament on both leaves. The two halves of the drawing seem to be in competition, each vying to be more precise and commanding. The plebeian pencil struggles to be an equal to the more stately pen and, amazingly, succeeds.

Then he hit upon the fundamental premise of his "graphite revolution," which was to bring the pencil drawing to the pitch of perfection and leave the ink and color out. Graphite alone would hold sway. In the months after Maderno's death in 1629, pen, like the disinherited Esau, disappears almost entirely from Borromini's drawings, while the pencil blossoms into a new maturity. The result is a style of breathtaking lightness, clarity and precision.

It took an usually enlightened patron to accept a project on the basis of a pencil presentation drawing. Take two elevations, one for the facade of the Oratory of the Filippini, and the other for the nave of the Lateran. Anyone could see their delicacy, their precision, their hair-fine *esatezza*. But was this not the medium of carpenters and apprentices? To take such drawings seriously one had to find pleasure in the miniature and the mathematical, to prize intensity of thought over sumptuousness of effect. Such sensibilities were often found among the naturalists and *virtuosi* who formed encyclopedic collections and used the microscope to peer into nature's own miniatures. Galileo turned the microscope on the fly, Federico Cesi on the lordly bee, in his *Melissographia* print of 1625. When the sharp steady eye of the lynx was turned on Nature this was the kind of image it expected to see. Rare is the Borromini patron who does not have a collection of lenses; some, like Cassiano Dal Pozzo, write in pencil.

Borromini left us a nice metaphor for the graphite drawing. It is contained in a manuscript about the Oratory of Filippini. In the dedication to a potential patron, the Spanish ambassador, Borromini apologizes for his clumsy writing. Literary style (*stile*) is not his strong point, and he is more at home with the instruments of drawing (*stilo*). His Excellency, he asks, will take the rough text before him and with the "tongue of his graciousness give it form, in the manner of the she-bear in the beastaries, who gives birth formless to her young and then licks them into shape." This is an old image. Titian had adopted it as his *impresa*. John Donne used it as a symbol of over-attentive love:

And love's a bear-whelp born, if we o're-lick
Our love, and force it new strange shapes to take,
We err, and of a lump a monster make.

For Borromini the bear licking its offspring into shape expressed vividly his feelings about his cherished creation the pencil drawing.

Borromini and the Trinitarians

In the early 1630s Borromini set out on his own. He offered his services for free to a number of patrons, but only the Trinitarians responded. By this time they were led by a monk who was more eager to build than to go off on ransom missions. His name was Fra Juan de la Anunciacion (1595-1644). Born of minor nobility from the Rioja, he studied law in Salamanca and took the habit of the Discalced Trinitarians in 1617. After a novitiate in Madrid and study in Baeza and Alcalá de Henares he was sent to Rome, where he settled into the life of the little community at the Quattro Fontane. In 1628 Cardinal Francesco Barberini heard him in the pulpit and named him as his confessor, a post that he held until his death in 1644. To maintain a facade of neutrality Urban VIII's two cardinal nephews were meant to represent the interests of the two warring crowns, Francesco of Spain and Antonio of France. So at age thirty-three Juan de la Anunciacion suddenly found himself an *eminence grise* courted by cardinals, princes and great men. He remained a staunch advocate of Spain in a largely Francophile court.

Juan de la Anunciacion would commission a fresco of the *Annunciation* in the church as a kind of signature, and we have a portrait that shows him with a plan of the church in hand. This was a man with a grand design, a *disegno* as he called it, to build a church richer than Solomon's temple, with a floor of emeralds and precious stones. But his order was desperately poor. Then Fra Juan had a stroke of luck. Cardinal Francesco Barberini, the papal nephew, heard him preach and asked him to become his confessor. At age 33 Fra Juan became an *eminence grise*, a hispanic presence in a francophile court. He was widely courted, but in the end no one stepped forth to take up the project of a new church. Fra Juan began building anyway. He sent his monks out to say mass for a carlino, the smallest coin. Building became a kind of asceticism for Fra Juan, a constant battle with hardship and poverty, but one undertaken with confidence and inner joy. Should the Queen of Sheeba visit him she would admire him as Solomon.

This was the strange brief for the commission. S. Carlo had to be small and poor, no bigger than the small house which the Trinitarians had been worshipping in for a quarter-century. It had to remind everyone of the history and mission of the Trinitarian order. But it also had to represent the aspirations of the *scalzi* to independence from their hated calced brethren. It had to be a sophisticated design, capable of attracting patronage from a sophisticated court, but it had to be built for next to nothing. On these terms Fra Juan's *disegno* would merge with Borromini's.

Planning S. Carlino: Albertina 171

We have the earliest plan for S. Carlino and the monastic complex around it. It is a classical example of the graphite drawing, maybe the most complex in Borromini's work, darkened with reworking. Borromini first built a simple dormitory for the monks. The most elaborate room was the refectory, with its vault born on the shoulders of angels and its perspectival niche. Next Borromini built a very simple but magical cloister. It is a good example of his ability to condense a majestic model, the cloister of Brera, the Jesuit college in Milan, into a tiny compass. Instead of having three columns in the corners he has two, which jump the corners with consummate

grace: “la natura è nemica degl’angoli.”

When we turn to the church, the she-bear seems to have licked her whelp out of all recognition. What has happened is this. In 1634 Borromini drew a precise plan for whole complex. It included, naturally, a plan for the church, which was where we might expect it, behind the corner fountain, but still relatively small. Then when the church was about to be begun in 1638, the architect’s ambitions, and those of Fra Juan, expanded.

To get at the earliest idea we have to develop a kind of graphite archeology, penetrating down through the smudges with spade-like eyes until we reach whatever traces are left of the bottom strata. Blunt and Steinberg excavated down to a lower stage where they found a large plan, shaped like a four-leafed clover or quattrefoil. But we can dig deeper. In the right light we can see a crossing pier with a convex face and a niche. There was a small circular cupola supported by four such piers. The design was so simple, so right for the *scalzi*. It recalls the plan of the early Christian oratory of the SS. Croce at the Lateran. Sixtus V tore SS. Croce down long before Borromini got to Rome but it was recorded in countless drawings. This is the earliest stratum. Even after it was superseded the SS. Croce plan was preserved in a little chapel in the crypt, with the same convex piers.

We can now come up from the depths, slowly, like experienced divers, and see what the later strata amount to. The quattrefoil represents a phase of sudden expansion, as though Borromini wanted the church to reach the side street and the light that could come from a large window here. He may have been thinking of a small Michelangelo plan, sketched at the end of his life when he was building the Sforza Chapel. But then in the final stage we have the quattrefoil in compression. Instead of deep apses on the sides we will get shallow apses, made deeper in appearance by perspectival coffering. Columns arrive, 16 of them, snaking around the periphery. Thus in the end we have a plan that went through many phases, but kept something of each in the final synthesis.

Let us go back into S. Carlino. It should make more sense now that we have looked at the plan evolving on the drawing: the four original piers, then the quattrefoil with four expansive apses, then the quattrefoil compressed and the dome squeezed from a circle into an oval. But Borromini is thinking in elevation as well as in plan, and thinking allusively, packing concrete images into the church.

The interior would indeed become something of a mini-St.Peter’s. S. Lorenzo in Milan is there too. But if we look closer, at the very texture of the walls, we will see further allusions. The three niches of the crossing piers, originally meant to be all on the same level, with giant columns rising up between them and the wall punched out below the architrave, is a quotation from a famous building of Raphael, the Villa Madama. But Borromini opens up his wall even more that

Raphael, at four points rather than two. This is the beginning of the skeletal wall, a hallmark of the baroque.

Perhaps the clearest of all the allusions is on the outside, in the tempietto (Borromini's own term) over the cupola. The scalloped bays between the columns (actually there is not a piece of stone in the tempietto) have reminded all visitors of Baalbek. But as long ago as 1924 Hempel showed that reading was more important than travel, and that such structures were sprinkled across the pages of Montano's books on tempietti in the Roman countryside. This tempietto was meant to be crowned with a cross of red and blue glass, the cross of the Trinitarians' habit.

Like the bells rung by the acolyte at a Tridentine mass, in three sets of three rings each, using a triple bell, S. Carlino is full of ingenious triplicities: three niches, three shells (a "trivalve"), three angels in the pendentives, triple oak leaves and three-leafed clovers, three compartments in each leaf of the beautiful iron grilles.

Elastic, interwoven with allusion, highly skeletal, S. Carlino is also a hothouse of luxuriant growth. Leaves have covered the capitals, the ovolo has turned to pomegranates bursting with seed. The altar frames are bundles of flowers. Above the altars are friezes with acanthus, a "peopled scroll" where tiny birds, snakes and lizards thrive. Even the iron grille takes on some of the qualities of vegetal growth.

Behind these grilles are two tiny hexagonal chapels. One is completely devoid of floral ornament. It shows what moldings, properly handled, can do to a vault. The strong cornice makes the vault seem to soar overhead; an oval hovers in the center of the rib clusters; the whole design seems like an essay in magnetic force. The other chapel, the Barberini Chapel, is an essay in allegorical botany, and it takes its inspiration from the Barberini gardens that lie just across the street. We are in the world of Poussin's *Flora*. All these flowers cannot help but attract bees, and the whole chapel was designed as a lure for Barberini patronage, but their largesse never really showered on the church.

Once one has experienced all this, to descend from the upper church into the lower is to move from spring to winter. In this burial place for the monks there is no ornament at all. A visit to the crypt clears the mind, like a walk in the clear night air after an intoxicating dinner. Here better than anywhere else the overstimulated spectator can see that there is a crystalline geometry at work governing the movement of the walls above.

Geometry and Meaning

The monks often observed visitors coming into the church from their hidden choirs. The same people came back again and again and turned around and looked all over, contemplating the building in silence. The monks, for whom all aesthetics was theological, explained the fascination of the church this way. Rich and sumptuous interiors, like the Gesù or S. Maria

Maggiore, delight at first and then cloy the imagination. But here people come in in silence, and they seem to see always something new, never with boredom, but with an appetite to see more. This desire is like that of angels to see the Trinity. Human things lead to boredom; Divine things one conceives an appetite to return to see.

We know the name of one distinguished visitor, Alphonse de Richelieu, archbishop of Lyon and brother of the Great Cardinal. He was in Rome in 1644 for the conclave following the death of Urban VIII and returned to S. Carlino many times. We might guess that he was accompanied by the his protégé Pierre Mignard, the painter of the altarpiece. He could not describe the delight he experienced in the design. He pressed the monks for a plan. He was not the only one. Visitors from foreign parts--Flanders, Spain, the Indies--commented to the monks on its beauty and asked again and again for a plan.

For years Borromini refused, but in his last years he did envisage a publication. In preparation he drew a series of plans which show a geometrical shema: two triangles forming a diamond, with the four apses as half circles or half ovals swung off the points of the diamond. We have to be cautious with these geometrical drawings. They always used to be taken as projects for the church, but in fact it can be shown that they were done 25 years after it was finished. They simplify the design enormously. But a geometrical core there always was. It allowed Borromini to govern his winding walls and to plan interesting axes of vision (priest at the side altar straight through to the altar of the Barberini Chapel). But it also allowed him to express a particular sensibility about the natural world.

In the 17th century the geometry of natural objects was scrutinized as never before. Anthony Blunt found an entrée into this world through Galileo's famous utterance, that the book of Nature was written in the language of mathematics. This was indeed a brilliant intuition. But perhaps for the moment the most compelling example of this mentality that I can produce is a slender treatise of Kepler's, *The Six-Cornered Snowflake*, of 1611. Kepler was crossing the Charles Bridge in Prague one white Christmas, on his way to dinner, lamenting the fact he had no present to bring his friend. A snowflake landed on his glove. He looked closely. He had it! "I bring you nothing," he said to the friend, "Nichts, Nix." His treatise explores, for the first time, the hexagonal symmetry of snow crystals, and goes on to meditate on the divine source of the architecture of the honeycomb and the *facultas formatrix* (or *vis*, or *ratio*, or *anima*), the code by which Nature (*daedala tellus*) shapes all things. The essay planted the seeds of crystallography and close-packing, and influenced Descartes, Grew and Hooke.

Borromini certainly never read *De Nive Sexangula*, but the scrutiny of nature for its mathematical foundations was widespread in 17th-century Rome, particularly in the circles around Cassiano Dal Pozzo and the Barberini library. The idea was in the air. The plan that fits hexagonal chapels so tightly next to the diamond core is indeed close-packed like a crystal,

though it comes alive in a more botanical sense on the interior. For the Trinitarian patrons, who never read a word of science but who responded instinctively to triangles, Borromini could suggest that there was a continuity between heaven and earth (Holy Spirit in triangle in vault; triangle and circle in the plan).

Borromini did not want his church to be an easy experience. The spectator was meant to deepen his or her perception slowly by repeated visits, initial confusion, followed by an odyssey through the complex, movement from cortile to church, descent from church to crypt and then repeated all over while perception deepened.

We might return at this point to the question of social status that we posed at the beginning. How relevant was this highly elaborate little church to the fundamental mission of the Trinitarii del Riscatto, and how effectively did it represent the needs and aspirations of the *scalzi*? The answer is that, in Rome, the Trinitarians needed neither a naval base nor a penitential convent, but a building that would express their dignity and their desire for independence from the mother order. They got precisely what they wanted. In the middle of construction Urban VIII recognized the full independence of the Trinitari Scalzi from the Calced Trinitarians. They could even have their own general. Never again would they have to fear anyone hobbling them with shoes. It was rumored that Fra Juan de la Anonciacion was going to be made a cardinal. People began to congratulate him. But then France nixed the nomination. Fra Juan returned to his tiny cell at S. Carlino, kissed the floor and thanked God for saving him in the nick of time. From then on he wore a habit close to rags and never left his cell, except to assist at the deathbed of Urban VIII. He followed the pope to his grave soon after, and was buried without marker in the crypt of S. Carlino.

Cardinal he would never be, and *eminence grise* only of the second class, but the *disegno* of Fra Juan de la Anunciacion, to build a church richer than Solomon's temple, found expression in the ambition of a young architect to pack his first church with "tutto il suo sapere."

Gubbio

For years Borromini resisted the suggestion that he publish a plan of S. Carlino. He was jealous of his invention and afraid that the church might be copied. But in his last years he gave in and not only did drawings that were meant to be published, but even went so far as to allow a copy of S. Carlino to be built, the church of S. Maria del Prato near Gubbio.

In 1662 a fresco of the Madonna began working miracles on the road leading south in the meadows outside of Gubbio. The Bishop who took the miracle in hand, Alesandro Sperelli, knew Borromini's architecture at first hand and was close to one of his patrons, Cardinal Carpegna. He asked for a plan. How could Borromini refuse? He sent a plan and some essential drawings, and the copy, S. Maria del Prato, was built in 1663-67. The local master mason made several trips to Rome and doubtless conferred with Borromini.

To walk into the church in Gubbio is a slightly unnerving experience, because it is uncannily like the original, but also different. The plan is the same, though enlarged. One finds the same 16 giant columns, the crossing piers with their triplets of niches, the undulating cornice, the pendentives like St. Peter's, the oval cupola. But there are glaring differences. Some of the finely tuned allusions to Raphael or the antique that Borromini wove into his wall surfaces are just not there in the provincial copy.

A bigger difference still: there are no perspectival coffers. There was a good fresco painter in Gubbio, Francesco Allegrini. Bishop Sperelli had his man, and he would have his frescoes. So all of the coffered vaults of S. Carlino, the cupola and the vaults of the four *nicchioni* were replaced in Gubbio by smooth vaults covered entirely in fresco. This creates a radically different impression. The pendentives and *arconi* give the appearance of a thin and flimsy structure, opened up to the heavens like a garden pavilion. The frescoes show a Wagnerian epic about the Ascension of the Virgin to the Paradise depicted in the cupola. The niches, originally empty in Borromini's church, are filled with prophets who foresaw the event, like Isaiah. He galvanizes attention across a charged space. Whereas Borromini had tried to communicate through a refined language of architectural allusion, S. Maria del Prato has been thoroughly Bernini-ized, and communicates through a concerted mixture of sculpture, painting and architecture.

Facade of S. Carlino

The facade of S. Carlino is Borromini's last work, one of his most movemented and lyrical. It takes the design of one of the crossing piers of the interior and brings it out of doors, in the process making it more sinuous and more sculptural. The pier is part curved in plan and part straight, but the facade is all curves. The pier juxtaposes giant columns and shorter pilasters, but the facade is all columns. An architrave threads its way behind the columns of the piers, but on the facade the architrave is much more three-dimensional and is abruptly cut by the columns. The cornice of the facade, because it projects far out into space, appears to curve even more than the facade itself, creating a powerful drama over the spectator's head. Concave meets convex with no sharp transitions. For the curved facades of antiquity one might reach for metaphors from the plastic arts, but this facade one is tempted to compare to a bar of music.

The facade we see is, of course, the product of two hands and two minds. The lower half is by Borromini, built in 1665-67, while the upper half is by his nephew, built in 1675-77. The topheavy look is due to Bernardo's expansion of his uncle's design. The campanile as we see it is by Bernardo, and so is all the sculpture. Borromini's late masterpiece was presented to the world by a young man who was still confident enough in his talents to introduce major innovations.

Early Facade Designs

The dilemma of the architect is that the facade was condemned from the start to be as narrow as

the house front it replaced. While the church was still conceived of us a small chapel, as in the first design on Alb. 171, this was not an overwhelming problem. But when the church grew majestic, as it quickly did on the same drawing, the facade had nowhere to expand. To take over the corner fountain posed a problem of decorum, since the hoary river god was never going to move and not even a magician could have made it seem appropriate for a church.

During the thirty-year building history Borromini changed the context in which the facade would be seen by making the convent on either side of it progressively more aulic. He had started with an idea of great simplicity for the side facade in 1634-35. Then in 1641-44, with the church finished on the interior and the side facade standing in rustic brick, with much demolition and rebuilding Borromini reorganized the three bays along the side of the church into a powerful presence. The *facciatella* is still not quite a full-fledged church facade, but with the resplendent ornament of the central bay and strong pilaster clusters it is no longer bare and abject. It seems to demand a more august church facade.

At this point a patron appeared who wanted to shower money on S. Carlino. The Spanish ambassador, the Marchese di Castel Rodrigo, “aficcionatissimo a fabriche,” dangled an incredible offer before the Trinitarians and their architect:

‘Voglio [dice Castel Rodrigo] che a questa chiesa si faccia la facciata per conto mio, et voglio [che] spendere in essa vinti cinque milla scudi.’ Detto Sig.re Francesco gli disse, Ex.mo Sig.re, il sito della facciata non e capace di cossi grande spessa. Et rispose sua Ex(cellenz)a, ‘Voglio che tutta la facciata sia di mormoli’.

This exchange would have taken place shortly before 1640. There was a small delay and it proved fatal, since later in that year a distant and unforeseen revolution brought about Castel Rodrigo’s bankruptcy, sudden loss of office and permanent removal from the city.

There are two autograph sketches for the facade, one early and one late. Alb. 187 can be assigned approximately to the period of Castel Rodrigo’s offer, 1640. It shows an architect desperately searching for room on a narrow streetfront. The giant columns may represent an attempt to achieve compensatory grandeur in a limited space.

On Alb. 187 Borromini is wrestling with the great model of his youth, S. Giuseppe in Milan. Ricchini had given him a lesson in how to concentrate all the forces of an active and energetic lower story onto a narrow aedicula on the upper story. Borromini’s aedicula frames an oval window that was meant to let light into an opening pierced in the semidome over the entrance. Above this window the drawing shows a pediment like the Oratorio dei Filippini (1641-42), partly curved and partly straight.

In 1638-41 Borromini built a rustic facade in brick, which could be reveted with travertine or

even marble if Castel Rodrigo or some other maecenas stepped forth. Cruyl's veduta of April 1665 shows us what it looked like, and to supplement Cruyl we have two quick sketches by Tessin done in 1673 and two valuable drawings by Borromini himself, a plan (Alb. 177) and a partial elevation (Alb. 194). In this rustic stage the facade consisted of a bulge in the middle nestled in an embracing concave curve. This larger curve was not generated from a single center but from two, so really might be described as a segment of an oval, not of a circle. Where convex met concave the transition was angular, not smooth.

The 1640s and 1650s were lean years for patronage. Castel Rodrigo vanished from the Roman scene in 1640. Barberini patronage never materialized. In 1650 Fra Juan di San Bonaventura could say that S. Carlo was ripe for a facade worthy of a cardinal:

il disegno, che il Sig. Francesco Borromini tiene nella sua idea, che senza dubbio sarà di grande stima et dichiarativo delle Eccellenze del suo ingenio.

But no drawing survives from this middle period, and no cardinal stepped forth. Borromini returned to S. Carlo for a modest intervention in 1658-59, the rebuilding of the campanile. Some sort of campanile had been built in the campaign of 1641-44, and a bell had been cast in 1643. But the new campanile was taller. It is visible on Cruyl's veduta, a tempietto over a triangular base that stands directly over the fountain corner. It is a modest cousin of the great needle of S. Andrea delle Fratte, built a few years earlier in 1655-56.

Final Facade Design

The final design for the facade appears in plan on the famous set of geometric drawings, done around 1660-62, possibly as part of a larger project to publish Borromini's work. Even if they idealized the church and cloister, they show quite clearly the geometry of the facade.

Geometrically speaking, the radii that shape the two concave side bays are very short and so generate side curves of intense drama, which meet the central convex bulge in a continuous sinusoidal curve.

Something of the geometrical mystery of the interior, its quality as theorem, has come to pervade the exterior as well. But there is a subtle difference. At least some small part of the diamond that lay at the core of the plan is visible on the interior, in the straight faces of the piers. The same may be observed in the interior of S. Ivo, where some part of the governing triangle, to be precise one third of each side, is still visible in the straight sections of wall. The facade of S. Carlino, on the other hand, has no straight sections; it is governed by a triangle that is entirely invisible. The generated curves are there to produce intense emotion, while the generator, the invisible triangle, is left to the mathematical imagination.

It is only since the cleaning of 1992 that we can observe how organic the ornament of the facade is. The capitals are more like a new species of plant than the orthodox composite that they distantly resemble. It is not so much that they are covered with foliage. Rather they sprout it,

literally; the abacus tiles metamorphose at the corners into tendrils that weave in and out of a royal crown. Likewise the frames of the oval windows suddenly turn into palm fronds which curl beyond the reach of the frame and continue in lively low relief on the background wall. The great cornice affords room for lavish undergrowth. The consoles have turned into palm fronds and between them are many laurel wreaths, except in the center, where the space is reserved for still another crown.

Entering S. Carlo was made a heavenly experience by Borromini's ornament. A wreath of six- and eight-pointed stars is carved on the underside of the lintel with such deep undercutting that the stars seem to float on the surface of the stone. Angels inhabit the capitals of the door jambs, almost within reach, and confront every visitor with their melting gaze.

We can reconstruct Borromini's plans for the upper story in approximate terms. A team of Italian scholars has argued convincingly that work in 1667, the year of Borromini's death, went a few feet higher than the main cornice and included the four plinths of the upper story and the balustrade in front of the central window. Indeed, Tessin already shows one of these plinths in his sketch of 1673, two years before Bernardo set to work. This implies that Borromini wanted four columns on the upper story, and thus that he had put aside his early idea of a Ricchini-style aedicula, narrower than the lower story. His upper story would have had the same width as the lower story, the same curve and the same number of columns. But it would have been rather less tall than what Bernardo eventually built.

Falda, in the background of a veduta of the Quirinal Gardens, gives us a glimpse on a very small scale of what Borromini's upper story might have looked like. His rendering shows the four columns, the sinusoidal curve, and a central window. Immediately above the window he shows a cornice and a mixtilinear pediment like the Oratory. We may surmise that somehow or other Borromini would have made the upper parts of the facade work in concert with the campanile. This is probably the reason why before his death he told the monks that he wanted to tear down the campanile of 1658-59, the one shown by Cruyl, and rebuild it lower.

When he continued the upper story in 1675-77 Bernardo inflated his uncle's design and made it topheavy. He raised the cornice and topped it with a balustrade, like Maderno's facade at S. Susanna. He introduced six smaller columns not shown on the Falda print to give his work some of the complexity of the lower story. One of the most striking but illogical motifs is the "sentry box" that frames the central window. It is not shown on the Falda print and it seems to be Bernardo's invention. He took it from the great cinerary urn in Borromini's monument to Alexander III in the Lateran, complete with its tent-like crown. But by nature an urn is solid; to pierce it with a window is illogical; to put it in the center of a facade is inexplicable.

Above all Bernardo was statue-happy. He had already filled up the niches of the lower story with sculpture, but now he made the facade culminate in the image of two flying angels bearing aloft

a huge medallion of the *Trinity*. This is a Berninian motif. We find it in his Fonseca Chapel in S. Lorenzo in Damaso and in his church of S. Tommaso di Villanova in Castelgandolfo. In Bernini's altars the *angeli reggimedaglione* drift effortlessly aloft, but at S. Carlino the medallion they bear is made to cut through the cornice with the help of sharp-pointed volutes. The cornice in turn slams into the campanile that Bernardo had rebuilt in 1670. The effect of the skyline is everywhere jumpy and discontinuous.

Bernini and Borromini on the Via Pia

Borromini brooded on the facade of S. Carlino for most of his adult life. The final design, while it owes much to the design of the crossing piers and thus indirectly to Anet, St. Peter's and Villa Madama, makes no gestures to any contemporary work, and this in the half-decade when almost all of the great facades of the Roman high baroque were planned or begun: Cortona's S. Maria della Pace (1656) and S. Maria in Via Lata (1658), Carlo Rainaldi's S. Maria in Campitelli (first scheme 1658), and Bernini's churches in Castelgandolfo and Ariccia (1658-61). None deflected Borromini from his inner vision.

Nor did Bernini's facade of S. Andrea al Quirinale, a close neighbor of S. Carlino. In 1658, when S. Carlino was still a box of brick, Bernini planned a simple brick facade for S. Andrea, probably close to the facade he had just lost, the Re Magi Chapel at the Propaganda Fide. By 1659-60 he began thinking of a facade with a giant order. He finally built his magnificent travertine facade with its semi-circular portico in 1670. By then it was too late to influence Borromini's conception, built up to the cornice in 1665-67.

In any case Bernini's facade is worlds apart from Borromini's. S. Andrea has a semi-circular porch and concave side wings, but there is no sense of sinusoidal flow. Bernini's facade speaks the language of cinquecento classicism and resolutely refrains from arbitrary invention. The idea of designing a new species of capital would have appaled him. The whole composition might be mistaken for a bay of Michelangelo's Palazzo dei Conservatori remade with slight adjustments as a church door.

By the end, as Tod Marder has suggested, S. Andrea had turned into something of a palatine chapel, the favorite church of the great ecclesiastics who frequented the court. The beauty of Bernini's church and its proximity to the palace probably siphoned off some of the prelates who might have strayed further down the street to S. Carlino. Borromini's church was sought out by some great prelates but in general attracted a different type of visitor, foreigners with their lists of new and noteworthy sights, virtuosi like John Evelyn, or lovers of architecture like François Blondel, who visited the church in 1671 with his charge, Colbert's son, the Marquis de Seignelay.

For all their differences, Bernini's church and Borromini's became the great sights of the Via

Pia, eclipsing the many churches that had not strayed quite so far from the austerity of reform. These two buildings came to be seen as symbols of the rivalry of their authors. But aside from the venom that dropped from the pen of the critic Bellori, to the effect that the architect of S. Carlo was an ignorant goth who had corrupted good architecture, there was no question that both churches were masterpieces. On this boulevard of *scalzi* these two stood out, the one as though it were built with all the wealth of Solomon, the other with his wisdom.