

SONGS OF OSSIAN

FESTSCHRIFT IN HONOUR OF
PROFESSOR BO OSSIAN LINDBERG



Cover image: Bo Ossian Lindberg in Sealand, Denmark September 2002
(photo Lars Berggren).

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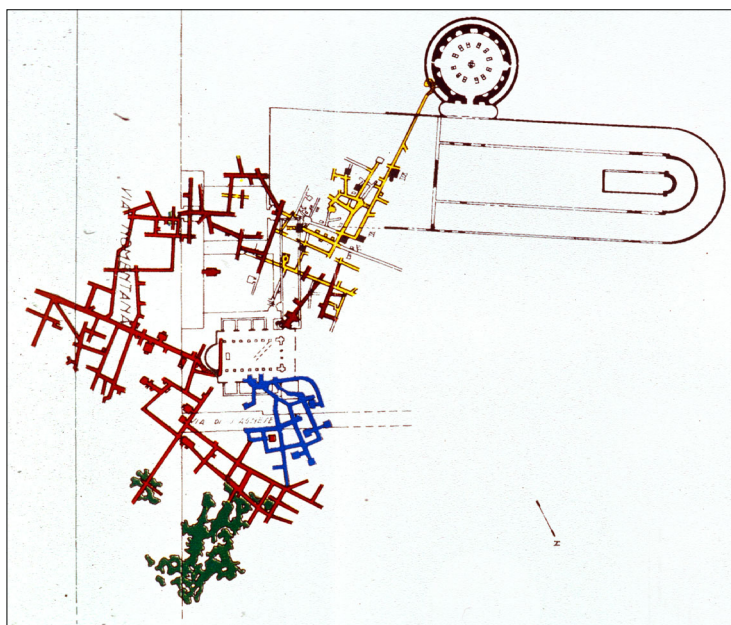


Fig. 1. Plan of the monumental Saint Agnes complex in Via Nomentana, Rome, on top of the subterranean grid of catacombs. The circular structure of Santa Costanza is adjoined to the large horse shoe shaped basilica, now in ruins. Some 70 m north east of these ruins is the location of the present basilica of Saint Agnes. From Frutaz, 40.



Fig. 2. Exterior of Santa Costanza from the west. The cylinder shaped building was erected immediately south of the big horse shoe shaped basilica of Saint Agnes. From Frutaz, front cover.

DOLPHINS AND MORTAR DATING – SANTA COSTANZA RECONSIDERED¹

INTRODUCTION

Art historians and humanists have dealt with Santa Costanza, and disagreed deeply, since the beginning of the Renaissance. Many questions concerning this enigmatic construction still remain to be answered. Indeed, at present it seems that we are in the middle of a heated debate; exacerbated, no doubt, by the fact that Jürgen J. Rasch's long awaited monograph on the subject, has not yet appeared.² In spite of all this, I dare to challenge fate, and present my recent research on Santa Costanza in a Festschrift to honour my dear friend and colleague, Ossian Lindberg. I do this for a number of reasons. Not only is Santa Costanza one of the best preserved buildings from Late Antiquity left in Rome, it also happens to be one of the most aesthetic and beautiful of all surviving architectural creations. In strange ways, Santa Costanza unites many of my special fields of interest, such as the grand city of Rome itself, early Christian architecture and liturgy, mortar-dating, and dolphin studies, all of them topics that I have had the privilege to discuss with Ossian over the years. As a listener he has shown admirable patience, but I also believe that he sincerely and genuinely shares my deep fascination for the subject. In what follows, I shall concentrate on the topics mentioned above, and hope that they

can contribute to a deeper understanding of the chronology and the original function of Santa Costanza.

DESCRIPTION OF THE ARCHITECTURE AND THE MOSAICS

Santa Costanza is part of a larger complex of buildings erected on top of an ancient cemetery with the remains of the Roman martyr Saint Agnes. She suffered her martyrdom at the age of 12, during the time of the Diocletian persecutions. Her virginal body was buried at Via Nomentana, at the cemetery which has borne her name ever since. Her bravery during the martyrdom made a deep impression on the Romans, who gathered around her tomb on January 21, a practice dating from as early as the fourth century, in order to commemorate her dies natalis and to ask for her protection. In the fourth century she is represented as a young girl in prayer, but later her attribute is a lamb, the symbol of purity.³ Together with Lawrence and Sebastian she is one of the early Roman saints, with a profound influence on the local cult.

Today the church of Santa Costanza is adjoined to the south side of a vast ruin, shaped like a



Fig. 3. Interior of Santa Costanza, towards the south. Photo Åsa Ringbom.

horseshoe. Some 70m further northeast of the ruin is the location of the present little basilica of Saint Agnes. (Figs. 1 – 2). Santa Costanza is a circular building with a concentric plan, measuring 11,33 m in diameter, covered by a cupola which is supported by coupled radiating columns (figs. 3-4). The entrance is placed in a narthex facing north. The central nave, lightened by 17 small windows encircling the cupola, opens towards a surrounding barrel vaulted ambulatory, with 11 niches, alternately apse-like and square, along the outer walls. Two side niches are larger than the rest. Along the central axis towards the south, a rectangular niche contains a great sarcophagus of porphyry. This is a copy of the original sarcophagus, which has been in the Vatican collections since the eighteenth century (fig. 5). Currently, the central dome has fresco decorations from the same period. The original mosaics of the cupola were torn down in 1620 on the initiative of Cardinal Fabrizio Veralli. In the ambulatory the original mosaics are still intact. They are divided into twelve separate sections with individual patterns. The same pattern is as a rule repeated in two of the sections. A white

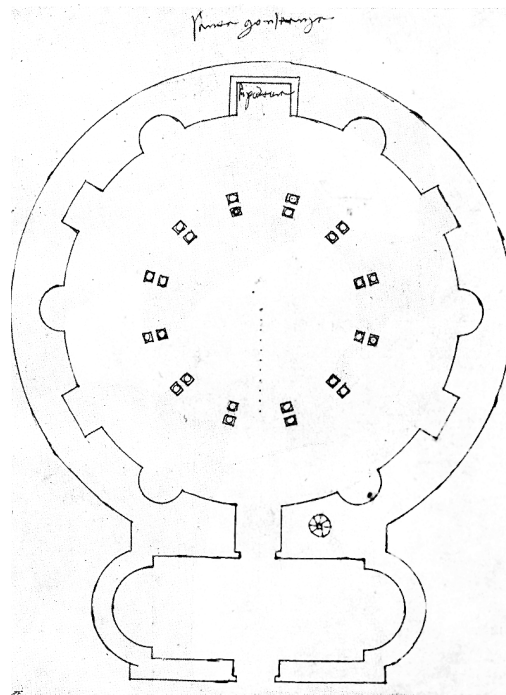


Fig. 4. The concentric plan of Santa Costanza, documented by an anonymous artist during the Early Renaissance, from Egger, Codex Escorialensis, Fol. 75.

Fig. 5. The sarcophagus of Constantina, daughter of Constantine the great, porphyry, until the 18th century placed in the large niche in the south axis of Santa Costanza. Now in the Vatican Museums. Photo Åsa Ringbom.



Fig. 6. Mosaic depicting vine harvesting scenes with portraits in centrally placed medallions in front of the side niches of the ambulatory in Santa Costanza. Photo Åsa Ringbom.



empty area in front of the sarcophagus is flanked on either side by the most breathtaking mosaics, filled out with the symbolism of the potable – with different wine vessels, birds, flowers and fruit baskets – in a thematics which is altogether Bacchic. The same Bacchic iconography dominates the sections above the large side niches. Intertwining vines or acanthus leaves cover the entire background, with central medallions framing portraits of a woman and a man. *Putti* are busy harvesting, and pressing the grapes. Wagons transport the new harvest to the presses

(fig. 6). The rest of the sections are mainly filled with geometric decoration, with *Amorini* evenly spread out. The area above the entrance is flanked on either side by geometric patterns composed of small dolphins, in a heraldic arrangement four and four, radiating towards an octopus in the center (Cf. fig. 14). The mosaics in the larger side niches are later and clearly Christian in nature;⁴ while, closely linked to the Bacchic harvesting scenes of the ambulatory, the porphyry sarcophagus is covered with reliefs depicting peacocks and *putti* harvesting grapes.

STATE OF RESEARCH

The architecture

This is not the place to present the extensive list of literature dealing with different aspects of Santa Costanza.⁵ Almost from the very beginning, when scholars started paying attention to this enigmatic building, opinions have been fundamentally divided. To begin with, the very name of Santa Costanza caused confusion, since Constantine the Great is not known to have had a daughter by that name. Constantina⁶ was the name of the daughter of Constantine the Great, and Constantia was his sister. Nor is there a Costanza or a Constantina listed among the early saints. To compound all of this, both the chronology and the function of the actual construction have been matters of dispute for centuries.

From the very beginning the construction of Santa Costanza was organically connected with the larger complex of the basilica of Saint Agnes and the cemetery. But it was confused with the present basilica of Saint Agnes, and the true location and function of the original basilica was not identified until much later. Giovanni Battista De Rossi, the great discoverer and expert on the catacombs, excavated the area under the high altar in the center of Santa Costanza between 1870 and 1880, and he claimed to have found remains of a baptistery at about a metre below floor level. There he identified a water tank and draining system for rainwater, and consequently believed that he had found the actual font. Thus, according to De Rossi, the building had primarily been a baptistery. In 1912 Rudolf Michel compared the general outlines of the construction with the architecture of the Lateran baptistery and noted many parallels, such as the concentric plan adjoined to a narthex. Quoting the text from Ammianus Marcellinus, Michel claims that the building had been a mausoleum. Michel's theory was that the building first served in that function and was later transformed into a baptistery. Michel saw nothing in the original decorations that would point towards baptism.⁷

In his first publication on the Basilica of Saint Agnes, Richard Krautheimer did not grasp the complex relation between the different buildings at the cemetery at Via Nomentana. To him the large elliptical construction next to Santa Costanza was a great mystery. Instead he connected the early sources about the basilica of Saint Agnes to the present little basilica of Saint Agnes nearby. The main piece of the jigsaw puzzle did not fall into the right place until 1946, when Friedrich Wilhelm Deichman, the expert on Roman mosaics, presented his idea that the elliptical construction was identical to the Constantinian basilica of Saint Agnes mentioned in the early sources. His theory was confirmed in archaeological excavations in 1954-55. Later, in the 1960s, when Richard Krautheimer returned to the subject and compared the elliptical construction with other similar structures in Paleochristian Rome,⁸ he identified them all as basilicas primarily erected for funerary banquets, seeing them as so-called Coemeterium Basilicas. There were several of them, all close to the graves of the martyred Roman saints, and they had one more thing in common - they had all been abandoned after a few centuries.

In 1960 Amato Pietro Frutaz presented his first edition of a full and detailed description of the whole complex, including an impressive survey of the state of research and of the prime sources. He was convinced that the basilica of Saint Agnes was erected in the period 337-350 AD by Costanza or Constantina, daughter of Constantine the Great, who died in 354 in Bithynia. According to Frutaz, contemporary sources describe how her remains were carried to Rome to her mausoleum, which (at some point in the middle of the fourth century), she erected next to the basilica of Saint Agnes, as a manifestation of her devout longing for protection from her patron saint, the little virgin Agnes.⁹ Santa Costanza is no longer regarded as a baptistery, and the baptistery mentioned in the sources yet remains to be found in future investigations. In passing, Frutaz mentioned the diary of the Canon Ubaldo Giordani, who had been present at De Rossi's excavations in Santa

Costanza in 1888.¹⁰ But it was not until 1977, when A. Ferrua cited the Giordani diary at length, that De Rossi's theory about the remains of a baptistery under the floor was finally corrected. In fact, the diary very specifically showed that there had been no trace of an original baptismal font under the floor of Santa Costanza.¹¹

The American scholar David Stanley apparently caused something of a sensation (not to mention a certain amount of confusion), when in 1993 he published the results of his excavations in the area between Santa Costanza and the elliptical basilica of Saint Agnes. He concluded that the walls between Santa Costanza and the basilica were not connected. Instead he found a connection between the wall of the basilica and another construction under Santa Costanza. He linked this lower structure, computer reconstructed into a triconch (fig. 7), with the idea of a *memoriae* or a *martyrium* for the early devotion of Saint Agnes. Different scholars have dated the *coemeterium* of Saint Agnes between 340 and 350, and since it is joined to the triconch, the present building of Santa Costanza cannot be identical to the original mausoleum of Constantina. It has to be younger than the basilica of Saint Agnes, and consequently it could not have been built by Constantina as her mausoleum, nor could she have been buried there immediately after her death. Instead, Stanley suggests another place for the burial of Constantina, in the unique and big apsed structure in the middle of the central nave of the *coemeterium* basilica of Saint Agnes, which had been excavated in the

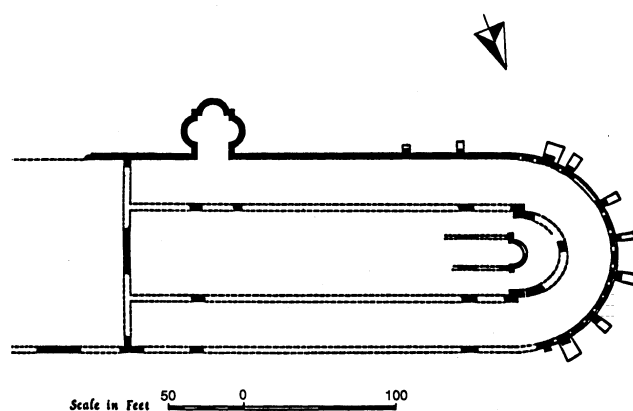
1980s. Stanley does not offer another more exact date for the present church of Santa Costanza. Inspired by Stanley, the Danish art historian Mikael Bøgh Rasmussen, offers a new date for the mausoleum, associating it to the later half of the fourth century, maybe even further towards the end of that period. Rasmussen still thinks that a mausoleum was the most likely function for the original building.¹²

In a short article announcing his forthcoming monograph on Santa Costanza, the German scholar Jürgen Rasch is critical of David Stanley's theories about the triconch found under Santa Costanza, and the secondary nature of Santa Costanza in comparison to the cemetery church of Saint Agnes.¹³ Rasch says that Stanley has caused unnecessary confusion among scholars, that Deichman had already noticed the lower structure under Santa Costanza, and that there is no reason whatsoever to revalue the existing theory: that Santa Costanza was erected by and for Constantina, daughter of Constantine the Great, as her mausoleum, and that this probably took place between 337 and 350, when she stayed in Rome between her two marriages.

Mosaics

To art historians the interpretation of the mosaics in Santa Costanza has been as challenging as the building itself. The mosaics have been seen either as proof of a late Roman pagan temple,

Fig. 7. The triconch construction joined to the *coemeterium* basilica of Saint Agnes, reconstruction drawing by David Stanley, from Stanley, ill. 24, p.109.



or as sublime scenes from the Old and the New Testament. One reason for this is that the original mosaics of the cupola were in a very fragmentary state when they were documented in the Early Renaissance and shortly before they were torn down. The earliest eye-witnesses to comment on the mosaics were generally convinced that the iconography of Santa Costanza was purely pagan and Bacchic in nature. But there were also some early scholars who saw an intrinsic Christian meaning in the mosaics.

Again, from the nineteenth century on, art historians have been deeply divided on the matter. De Rossi, who thought that he had identified a baptistery with the font under the altar, interpreted the upper zone of the cupola as a series of miracles of Christ. In 1904, F. Jubaru reacted against the purely Christian view of De Rossi, and presented a well analyzed compromise between the pagan and the Christian interpretation. Rudolf Michel, who blamed the fragmentary state of the mosaics for the confusion, pointed out two possibilities. The least plausible of these was that the lower zone illustrates scenes from the Old Testament. The upper zone was, according to Michel, too fragmentary to discuss seriously. In all this, he saw absolutely nothing pointing towards baptismal iconography. On the contrary, the iconography was more suitable for a mausoleum. Further, Michel found it plausible that the decoration of the ambulatory, with its *putti*, bacchants, dolphins and vine harvesting scenes, was contemporary with the central cupola. Together they form idyllic landscapes from Antiquity. However, the symbolism of baptism, such as the river Jordan forming a low frieze of the cupola, comes into the picture later. Therefore Michel thinks that the function of the mausoleum was transformed into a baptistery at a later stage.

In his 1916 study of Roman mosaics from the fourth to the twelfth century, Joseph Wilpert asserted that it was now undisputed that the building was erected by Christians and for Christian purposes.¹⁴ In 1955, Karl Lehmann reacted strongly against this attitude, which he found to be an

overstatement. According to Lehmann, modern advocates of the Christian origin of Santa Costanza had been rather high-handed in disposing of the consensus of those Renaissance writers who were convinced that it had originally been a pagan temple. Lehmann was equally convinced of this pagan origin of the temple. He even identified more pagan and Bacchic motives, long since lost, and he found it totally impossible that Julian the Apostate would have allowed a burial of his wife Helena, sister of Constantina, in a Christian mausoleum.

Henri Stern, on the other hand, admitted the pagan world of the mosaics, and claimed that this very mixture between pagan and Christian symbols was typical of the Paleochristian art in the fourth century. Like Michel, Stern thought that the primary function of the building was a Christian mausoleum, which was later altered into a baptistery.¹⁵ A return to Christian interpretation is made by Amato Pietro Frutaz, who, despite the Bacchic implications of the iconography, saw enough evidence of Christianity in the scenes of the cupola. Parallels to the frieze of the river Jordan along the lower part of the dome are to be found in later mosaics reflecting the Classical world, both in the Lateran and in Santa Maria Maggiore.

PRIME SOURCES

The obvious reason for the present diverging opinions is that the prime sources, both contemporary and those from the early Renaissance, are ambiguous and confusing. The most important prime source is the *Liber Pontificalis*, which records important happenings and donations during the different papacies. Although it was not compiled until the early sixth century, it is so detailed and rich in its information about the earlier periods that it is generally agreed to be based on early archival records, long since lost. In the *Liber Pontificalis*, the building history and the whole understanding of Santa Costanza is closely

linked to that of the basilica of Saint Agnes.

The passages dating from the pontificate of Silvester I (314-335) include a wealth of information about the buildings erected during the reign of Constantine the Great (312-337). Among these, the basilica of Saint Agnes is mentioned. When Constantine the Great passed away in Nikopolis in 337, he had not visited Rome for the last eleven years. The *Liber Pontificalis* reveals that Constantine erected the Basilica of Saint Agnes at the request of his daughter, and a baptistery in the same place where his sister Constantia and his daughter were baptized by Bishop Silvester.¹⁶ Thus, the *Liber Pontificalis* makes it perfectly clear that the construction of this basilica, including the baptistery, was finished during the reign of Constantine the Great, and before the death of Silvester in 335. We further learn from the work that Constantine the Great fully equipped the Basilica of Saint Agnes with liturgical vessels of precious metals to celebrate mass. Among these was a lamp of the purest gold decorated with thirty dolphins, and another golden lamp with twelve supports hanging over the font.¹⁷

Another important prime source is the acrostic dedicatory inscription, originally in the apse of the Basilica, which was still visible before repairs were made in the time of Pope Honorius I (625-638). Fragments of the inscribed marble slab were later found in the atrium of the Basilica.

C onstantina, Deum venerans, Christoque dicata,
O mnibus impensis devota mente paratis
N umine divino multum Christoque iuvante
S acravit templus victricis virginis Agnes
T emplorum quod vincit opus terrenaque cuncta
A ureique rutilant summi fastigia tecti
N omen enim Christi celebratur sedibus istis
T artaream solus potui qui vincere mortem
I nvectus caelo, solusque in ferre triumphum
N omen adhuc referens et corpus et omnia membra
A mortis tenebris et caeca nocte levata
D ignum igitur munus, Martyr devotaque Christo
E x opibus nostris per saecula longa tenebis
O felix virgo, memorandi nominis Agnes!¹⁸

This inscription describing the most wonderful temple in the world, radiating with gold, supports the information from the *Liber Pontificalis* that it was Constantina who had taken the initiative for this elaborate construction. She had become a Christian in her early years, and had been passionately devoted to the twelve-year-old Roman virgin Agnes.

The donations granted to the basilica of Saint Agnes follow much the same pattern as those made by the Emperor to other major Constantinian basilicas: a finding which supports the idea that the building really was finished during the reign of Constantine, or before 337.¹⁹ The date suggested by most scholars – 337-350 – is based on the fact that this is when Constantina resided in Rome between her two marriages. Most of her married life she lived in the East. Her first husband Hannibalianus, her cousin and the pagan king of Pontus, was killed in a political revolt following the death of her father. In 350 she married Gallus, another cousin as well as the brother of Emperor Julian the Apostate (361-363), and moved to Antioch. According to the contemporary historian Ammianus, Constantina died in Bithynia in 354 from an attack of fever on her way from Antioch to Constantinople, where she had been summoned by her brother Constantius, whom she feared and felt obliged to obey:

Constantius with many feigned endearments urged his sister, the Caesar's wife, at last to satisfy his longing and visit him. And although she hesitated, through fear of her brother's habitual cruelty, yet she set forth hoping that, since he was her own brother, she might be able to pacify him. But after she had entered Bithynia, at the station called Caeni Gallicani, she was carried off by a sudden attack of fever. After her death the Caesar, considering that the support on which he thought he could rely had failed him, hesitated in anxious deliberation what to do.²⁰

At this stage Ammianus reveals nothing about what happened to the remains of the Princess after her death. Nor does he mention her burial. But we do get additional information from him later. In

360, with the passing away of Constantina's sister, Helena – who was married to Gallus' brother, Julian the Apostate – *we learn that her remains were to be laid to rest in Julian's villa at Via Nomentana, at the same place where her sister Constantina had been buried* (emphasis mine).²¹ It is important to note that Ammianus, contrary to what most earlier scholars have claimed, does not mention a specific burial construction in this context, let alone a mausoleum.

The earliest source to mention that Constantina and a mausoleum in connection to the basilica of Saint Agnes, is a fifth-century legend, which states that “the virgin Constantina... had asked the Emperors, her father and brother, to erect a basilica for Saint Agnes, and to install a mausoleum for herself there”.²² Interestingly enough, the baptistery of Saint Agnes was still mentioned in the fifth century, during the papacy of Bonifatius I (418-422), when he celebrated the Easter baptism in “basilica beatae martyres Agnae”. The reason for this was that the baptistery of the Lateran was temporarily occupied by his rival Eulalius.²³ Not long after this, during the pontificate of Symmacus (498-514), the apse of Saint Agnes is reported to be in ruins, and Symmacus made the necessary repairs.²⁴ However, a little more than a century later the old basilica of Saint Agnes definitely seems to have been left in disrepair, and we learn that Honorius I (625-638) was already erecting the new basilica for Saint Agnes.²⁵ He had it moved “ad corpus”, that is to the relics of the martyred saint. The high altar of the new Basilica is located straight above the grave of Saint Agnes.²⁶

Thus, the old basilica erected by Constantine the Great at the request of his young daughter Constantina had fallen into ruin and was abandoned. Nor can it be a complete coincidence that the first source to refer to an actual ecclesiastical function in connection with Costanza's grave is contemporary with the new basilica of Saint Agnes – namely, the *De locis sanctis Martyrum* (written in the beginning of the seventh century), which describes the grave of Constantina for the

benefit of pilgrims: “there (in the neighbourhood of the basilica of Saint Agnes) in the church of Constantia, the daughter of Constantine is resting”.²⁷

On January 21, 865 AD, as is confirmed by the *Liber Pontificalis*, mass was celebrated in the church of Santa Costanza, near the basilica of the holy virgin.²⁸ The official installation of the altar in honour of *Beate Constantie filie Constantini*, did not take place until as late as March 17, 1256 when Pope Alexander IV, in the presence of the whole curia, inaugurated the Church of Santa Costanza. The original marble slab with the detailed and elaborate inaugural inscription was destroyed in 1605.²⁹ During the Late Middle Ages Santa Costanza seems to have been ignored and forgotten.

With the awakening interest in antiquity during the Early Renaissance, when the mosaics in the central dome were still *in situ*, although in a fragmentary state, the church became the focus of renewed interest and intense admiration. For those in search of the Classical world – including humanists and artists from all over Europe – the splendid mosaics became a powerful attractor. From as early as 1450, Giovanni Rucellai – one of the first Renaissance admirers of the building and the Florentine benefactor of Leon Battista Alberti – felt the need to pronounce it the most beautiful creation in the entire world.³⁰ It made an equal impact on Francesco Colonna in his dreamlike *Hypnerotomachia Poliphili*, dating from 1499. It is several times represented, both in plan, in different sketches of the cupola mosaics, and in details of the mosaics, in the famous *Codex Escurialensis*. This is a collection of contemporary sketches beginning from the end of the fifteenth century, by famous artists such as Francesco di Giorgio, Domenico Ghirlandajo, Antonio da Sangallo the older, Guiliano da Sangallo, Jacopo Sansovino, and Marten van Heemskerck. The most important and detailed of these documentations is a watercolour by d'Olanda (Francesco de Hollanda; fig. 8), who studied in Rome for two periods in 1539 and 1553. Pier Sante Bartoli



Fig. 8. The mosaics of the cupola, watercolour by Francesco d'Ollanda, documented between 1539 and 1557. The sketchbook by d'Ollanda belongs to the Royal Court Library in Escorial, (sign. 28 – 1-20), published by Wilpert & Schumacher, Tafel 5.

(1635- 1700) later studied the drawings from the Escorial collection for his final reconstructed versions of the dome mosaics.³¹ It is quite remarkable that the majority of these early eyewitnesses interpreted the building as a pagan temple devoted to Bacchus, mainly on account of the mosaics (especially those in the dome).³² The drawings of the dome differ from each other in such a radical way that they can do little more than reaffirm the inconclusiveness which we may feel from the fragmentariness of the mosaics.³³

Pomponio Ugonio, who documented the mosaics verbally in 1594, accompanying his work with simple sketches, is the first commentator of the mosaics to give them a Christian interpretation. He saw the mosaics of the central dome as illustrations of the Old and the New Testament.

Among scenes that he identified from the Old Testament were Susanna and the Elders, the sacrifice of Abel, the sacrifice of Elias, Tobias, Lot and the Angels, Moses at the well, Noah in the ark, the three boys in the furnace, Daniel and the Lions, and Jonah.³⁴ Foremost among these Renaissance sources, in addition to the drawing of Francesco da Hollanda, is the verbal description of Pomponio Ugonio. The man carrying a huge fish, to the far left in Hollanda's water colour, whom Ugonio interpreted as Tobias, is of special interest for this study. Hollanda's painting and Ugonio's written description also lay the foundation for the two diverging interpretations of the mosaics, the pagan, and the Christian, which still today dominates the research of Santa Costanza.



Fig. 9. Sampling situation in Santa Costanza, November 1998. Photo Åsa Ringbom.

MORTAR DATING

Although there is no general consensus on the chronology of the complex of Santa Costanza and the *coemeterium* of Saint Agnes, we have seen how scholars tend to place the latter between 337 until 350, or to the period when Constantina resided in Rome, between her two marriages. This usually also applies to Santa Costanza, for which only David Stanley and Mikael Bøgh Rasmussen have dared to suggest a later chronology. Rasmussen explicitly places it in the second half of the fourth century.

For the last five years an international team has been devoted to the quest of refining and developing a method of dating mortar. This mortar project was initiated in the beginning of the 1990s with the aim of establishing the date of the medieval churches of the Åland Islands, where scholars were seriously divided about the chronology. In 1994, when AMS (Accelerator Mass Spectrometer) ^{14}C analysis was introduced as a replacement for conventional radioactive dating, the results began to look very promising. Comparison with firmly dated structures, such as the dendrochronologically dated towers, started to show coherent results. In fact, with respect to the Åland site, things looked so promising that a logical next step was to test the method on other chronologies and topographies, as well as on mortars with a different chemistry.

For this very reason an interdisciplinary team of Finnish, American, and Danish scholars, consisting of archaeologists, art historians, physicists and geologists, was formed in 1998.³⁵ The quest was to find a method which could generally offer a reliable date for buildings of an unknown age. The potential for the successful dating of mortar is enormous as, ideally (as long as it is carefully sampled), it dates the time of construction. In this it differs from other scientific methods and materials, like tree-ring counting of timber, or ^{14}C analysis of wood and other organic materials, where older materials are often reused, and where considerations of later repair or replacement may come into effect.

The principle behind mortar dating is that radioactive carbon dioxide from the atmosphere is absorbed into the mortar at the moment it hardens. After hardening mortar behaves like an organic material: that is, the isotopes have a half-life of 5730 years and can be dated through normal ^{14}C -analysis procedures. As mentioned above, this analysis is conducted with the help of an Accelerator Mass Spectrometer, which counts the amount of ^{14}C isotopes that reach the final goal. The fewer the isotopes, the older the mortar sample. The team has expended a great deal of time and effort in order to eliminate the different risks involved in the method: avoiding, for instance, factors that can result in dating calculations that are too recent or too old. For a fuller description of the method and the history of its development, see our recent publications on the subject.³⁶

For the testing of the method it was essential to find securely dated and well-known structures from Classical Roman architecture, where the age could be well established through brick stamps and historical sources. Consequently, Rome was the obvious target, even if it meant risking the contingency that Roman hydraulic pozzolana would be too different from the medieval Scandinavian mortars to make it work. Pozzolana is a volcanic ash, which mixed into the aggregate, creates a mortar close to concrete, or ten times stronger than ordinary limestone mortar. The chemistry is obviously entirely different from

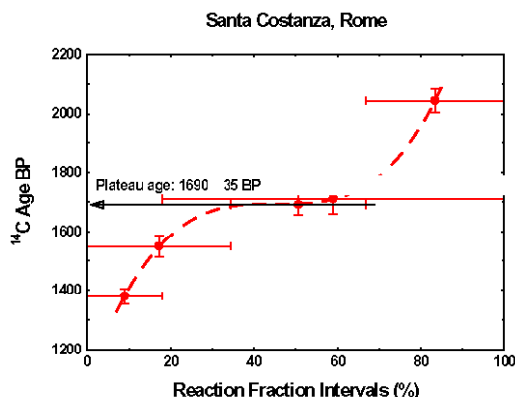
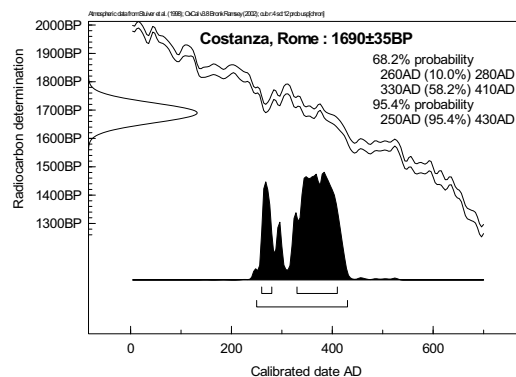


Fig. 10 a) Profile of the succeeding fractions of the sample from Santa Costanza. The date is yielded when the profile reaches a horizontal level, or 1690 \pm 35 PB.



10 b) The weighted calibrated age shows the highest concentration during the second half of the fourth century, however, at a confidence level of 68%, the error margins include the period 330-410.

Scandinavian medieval mortar. To harden it does not necessarily need to be exposed to the atmosphere and, accordingly, there was a real danger that the method would not work at all. For this reason it was equally important to test Roman mortars in areas where normal quartz sand was mixed into the aggregate rather than pozzolana. For the testing, relevant samples were taken from the Forum Romanum area in Rome; from Ostia, the harbour town outside of Rome; from the Spanish town of Merida, founded by Caesar Augustus; and from the Lusitanian Roman villa of Torre de Palma in Portugal. The Italian sites mentioned all have pozzolana-based concrete. In Merida, the mortar is also extremely hard, although it is entirely different from Italian pozzolana. Closest, among these, to Scandinavian mortars are the samples from Torre de Palma, which are based on a mixture of water, burnt and slaked lime, and quartz sand. Before the AMS analysis, samples are chemically separated with phosphoric acid under vacuum into succeeding fractions, each of them being analyzed separately. With the mortars from Åland and Torre de Palma, the correct age was yielded with the first of two fractions. Since then the method has developed further. With the hydraulic mortars at Rome and Ostia, and with the mortar from the Classical

period in Merida, the correct age was reached when a profile of the results of several successive fractions reached a horizontal stage.

By an amazing coincidence in 1998, after the sampling in the Forum Romanum area and in Ostia, I visited Santa Costanza to enjoy a moment of peace and quiet and to pay one of my repeated respects to this wondrous place. Entering, I heard banging from the walls as somebody – in an attempt to fit some new electrical installations – was chipping off mortar from between the bricks (fig. 9). I, of course, immediately asked for permission to fill my pockets with the mortar lying on the floor. This explains why we have not yet analyzed more than one sample from Santa Costanza. In line with Roman mortars in general, the profile from Santa Costanza reaches a beautiful horizontal level at 1690 BP. With the usual confidence of 68%, the calibrated result (figs. 10 a-b) from the mortar shows a major concentration towards the second half of the fourth century, even though one cannot completely rule out the period starting from ca 330 and ending in 410 AD. With only one sample analyzed, no matter how carefully done, and how regular the profile, one has to be careful with conclusions. But still, with the present stage of research in fresh memory, and Jürgen Rasch's critique of David Stanley's conclusions,

the date suggested by the mortar dating certainly is thought provoking and inspiring.

DOLPHINS

In order to learn more about the liturgy and the furnishings of the Constantinian basilicas, I consulted the *Liber Pontificalis* under the papacy of Silvester I. In addition to those sources already mentioned covering the basilica of Saint Agnes, I was surprised to find dolphins listed among the Constantinian lamp donations to the new founded basilicas, including the basilica of Saint Agnes. This detail, with dolphins connected to lamps, seems to have passed unnoticed by scholars. It consequently resulted in an article³⁷ co-authored with a colleague, another friend of Ossian's, John R. Hale, classical archaeologist from the

University of Louisville, and an expert on the sanctuary and the oracle in Delphi. We found that the dolphin (obviously enough, as the attribute of both Apollo and Dionysos), was simultaneously the symbol of both light and darkness. It is well known that Constantine the Great closely affiliated himself with Apollo, the Light God, and Sol Invictus. The dolphins of his lamp donations are therefore to be interpreted as light symbols. In the case of Santa Costanza, however, it seems logical to concentrate on the dark side of the iconography, on the symbolism of death and the death cult which (in the case of the dolphin), is also connected with both Apollo and Dionysos.



Fig. 11. Antonio Sangallo's drawing of the mosaics in the cupola, Codex Gaddi Campello, fol. 51, the H. von Geymüller Collection, from Michel, Tafel IIa.

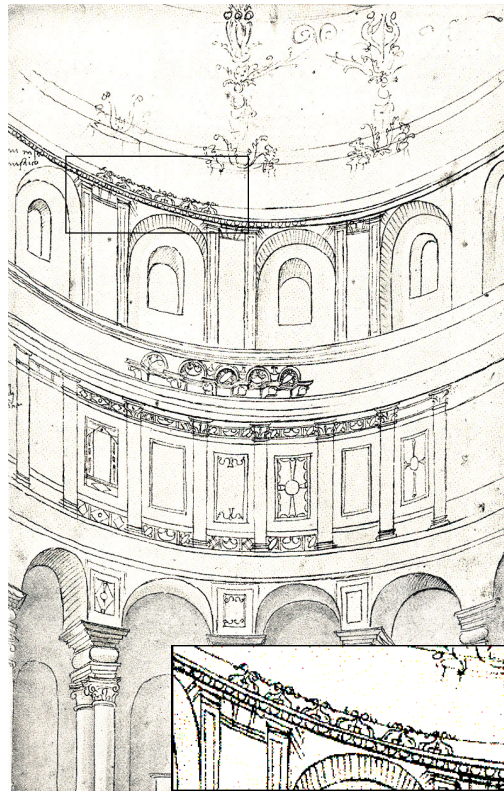


Fig. 12. Drawing of the cupola mosaics in Santa Costanza, by an anonymous artist during the Early Renaissance, "Von diesem der Fries mit den Delphinen zu Seite eines Dreizacks, die Klippen mit den Panther und Akanthuskelchen" from Egger, Codex Escorialensis, sign. 28 – II – 12, Fol. 7. Enlargement of dolphin frieze in lower right corner.

The number of dolphins in the mosaics of Santa Costanza is striking. The building did in fact contain more dolphins than had been earlier noted, and this is why nobody, at least to my knowledge, has previously tried to approach to the problems of Santa Costanza through this magnificent creature. First, we have the dolphins flanking the panthers in the cupola, beautifully manifested in the water colour by Francesco d'Ollanda. A drawing of the cupola mosaics by Antonio Sangallo, even presents dolphins in both layers of friezes of the dome (fig. 11). Differently from d'Ollanda's frieze of lilies and S-shaped figures under the river Jordan, two of the anonymous drawings in the *Codex Escorialensis* present the same frieze as heraldic dolphins flanking a trident (figs. 12 and 13). Further, there are the dolphins already mentioned, which may be found in two sections of the ambulatory, arranged heraldically four and four, radially facing an octopus (fig. 14). All these dolphins, together with the panthers and the vine harvesting scenes both in the mosaics of the ambulatory and the grand porphyry sarcophagus, provided reason enough for the early eyewitnesses during the Renaissance to ascribe Santa Costanza to an original *Templum Bacchi*.

But, as Karl Lehmann pointed out, there is even further proof of the Bacchic origin of Santa Costanza. In his book on ancient deities from 1566, V. Cartari published an image of the Dionysos legend (fig. 15) from the Homeric Hymns of the seventh century BC. The legend tells how Dionysos was kidnapped by Etruscan pirates, and taken out to sea. The pirates planned to extort a handsome ransom from the parents of the beautiful youngster, whom they did not identify. To punish his kidnappers, Dionysos transformed them into dolphins, after which they all panicked and jumped overboard. A complementary comment in the second edition from 1581, informs us that "this type of Bacchic ship could still be admired among the most beautiful mosaics in Rome, in the church by Saint Agnes, formerly a temple of Bacchus".³⁸ The legend of Dionysos and the Etruscan pirates was deeply rooted in Classical Greece. It often recurred in the vase paintings

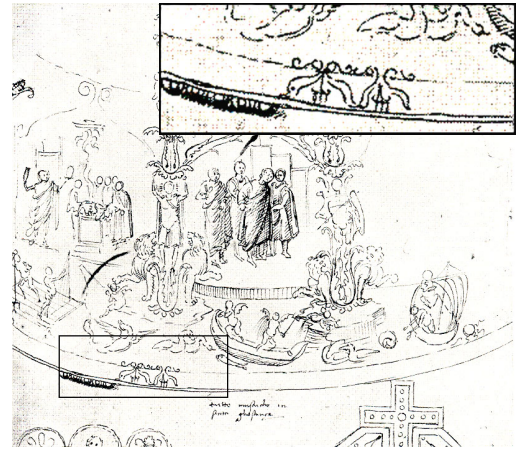


Fig. 13. Anonymous drawing of the cupola mosaics in Santa Costanza during the Early Renaissance, "Zu unterst ein Eierstabgesimse und ein Fries mit Delphinen zur Seite eines Dreizacks, vgl. Fol. 7", from Egger, *Codex Escorialensis*, Fol. 4v. Enlargement of dolphin frieze in upper right corner.



Fig. 14. Mosaics in the sections flanking the entrance, heraldic dolphins arranged four and four towards an octopus in the middle. Photo Åsa Ringbom.

and in sculptures. Best known and breathtakingly beautiful is the scene on a cylix painted by Exekias (fig. 16).

The dolphin lamp that Constantine donated to the basilica of Saint Agnes during the Papacy



Fig. 15. Woodcut by V. Cartari 1566, depicting the Dionysos legend from the Homeric Hymns, from Lehmann 1955, 194, fig. 1.

of Silvester, that is before 335, is Apollonian in nature, rather than Bacchic. So is the dolphin candelabrum in the Santa Costanza, described to us in the *Hypnerotomachia Poliphili* by Francesco Colonna in 1499.³⁹ Dolphins in grotesques fascinated the artists of the early Renaissance, as is indicated by the many drawings in *Codex Escurialensis*, where a large percent of all the images include dolphins in some version or another. Dolphins and Apollo, or Aplu, were intimately connected with the Etruscan death cult from at least the sixth BC onwards, and they are frequently represented in the wall paintings of Tarquinian tombs. From the first century AD until the middle of the fourth century, dolphins on the lids of Roman sarcophagi were a common theme. After the victory in Actium in BC 31, in the safe protection of an Apollo temple, Octavianus/Augustus elevated Apollo to one of the highest deities in the Roman pantheon.

He built a temple to Apollo on the Palatine, next to his private villa, and he started regarding Apollo as a revered and important ancestor. Dionysos, or Bacchus, on the other hand, was associated by Augustus with Marc Antony, and for a while had negative connotations in Rome.

No Roman Dionysos cult was initiated until the time of Hadrian, when the Imperial cult was called *Neos Dionysos*. Dionysian or Bacchic mysteries are mainly known through the arts in Italy. In literature there are only a few references. Dionysos Cosmocrator, the protector of the dead, played an important political role in the cities. Dionysian spectacles were introduced, and became popular among the public.⁴⁰

Sarcophagi representing various subjects from the myth and cult of Dionysos are later, mainly belonging to the third and fourth centuries AD. They are purely Dionysian in iconography, without dolphins, richly and elaborately adorned, and popular among the upper classes.⁴¹ Dolphins without Dionysos do, however, also play a significant role in the iconography of Roman sarcophagi from the first century BC until the fourth century AD. They are most commonly represented swimming through the waves on the lids of sarcophagi: many of these dolphins being from the Constantinian period and of Christian origin.⁴² It would seem that the dolphin belonged to Dionysos before he was adopted into the Imperial cult. In sarcophagal art the dolphin and Dionysos/Bacchus are represented separately, but they both play equally important roles. In other words, the combination of dolphins and Dionysos/Bacchus was not part of the Roman death cult, and as such this combination in the mosaics of Santa Costanza is not quite argument enough for the interpretation that it was a mausoleum.

However, the numerous dolphin lamp donations of precious metals to the early Christian basilicas are proof enough of how the dolphin as a light symbol survived from paganism into Christianity. Dolphins are also to be found among the decorations of the catacombs. Nevertheless, dolphins are only rarely mentioned in Christian iconography, and when they are, scholars repeat-

edly see them as a symbol of the resurrection, in scenes of Jonah and the whale. Yet this interpretation appears to be misleading. I have not found one single image of Jonah in which the whale is depicted as a dolphin. The whale is almost constantly featured as a sea monster, and if dolphins do occur in the scene, which they rarely do, then it is very marginally in the background, among other sea animals.

For the understanding of Santa Costanza, there is another interesting and overlooked example of the dolphin in a Christian context. And in this case the dolphin is both a symbol of the resurrection and of Dionysos, who this time undoubtedly has Christian connotations. It is the legend of the presbyter St. Lucianos of Antioch, which provides a grand combination of Christianity, Dionysos, the Dolphin, Constantine the Great, and his mother Helena. In 312 the saint was martyred in Nikomedia under the emperor Maximinus Daza, one of the early co-regents of Constantine the Great. One variation of the legend goes as follows: In spite of heavy torture Lucianos kept insisting that he was a Christian. Maximinus therefore ordered a huge stone to be attached to his right arm, whereupon Lucianos was sunk to the bottom of the sea, where, after a miraculous 14 days of agony, he finally died. On the fifteenth he appeared to his pupils in a vision telling them where to find him. They went to the site by the sea, only to see an enormous dolphin bringing the corpse of the martyred Saint ashore in Bithynia, after which the dolphin himself expired in the sand. This is clearly a variation of a popular Classical legend as recalled by, for instance, Herodotus, in which the famous lyre-player and singer Arion was taken to safety ashore by a dolphin in Taenarus nearby. In this myth Herodotus connects Arion with both Dionysos and Apollo.⁴³ To commemorate the martyrdom of Saint Lucianos, Helena, mother of Constantine, founded a basilica on the site, in a location which has subsequently been identified by archaeologists. To honour his mother, Constantine, in his turn, founded the city Helenopolis by the basilica, near Nikomedia. In Bithynia the cult of Saint Lucianos was always



Fig. 16. Dionysos transforming the Etruscan pirates into dolphins, kylix with black figure painting by Exekias, ca 530 BC, found in Vulci, Munich, Antikensammlungen, from postcard.

connected to the local cult of Dionysos.⁴⁴ The cult of Saint Lucianos was officially introduced by Johannes Chrysostom in 381 AD.⁴⁵

Let us speculate further and return to the watercolour by d'Ollanda, and to the man to the far left, who is carrying the enormous fish. It is a possibility, at least in theory, that the symbol could have been misunderstood by d'Ollanda, that the man was actually carrying a dolphin rather than a fish. In such a case the image could be seen as one rare representation of Saint Lucianos. But if we disregard the Christian interpretation of Dionysos and the dolphin, how then are we to understand the Dionysos/dolphin theme of Santa Costanza? Could it be a sign of the relapse into paganism during the reign of Julian, ruling emperor 361-363? We have to keep this in mind as a possibility. After all, Constantina's second husband Gallus was his brother, and Constantina's sister Helena, buried next to her, was married to the emperor Julian. We do not know exactly how devout a Christian Constantina was towards the end of her life. Ammianus' testimony may give some reason for doubt. This historian with close relations to

the Imperial court, who was no great admirer of Gallus' wife, describes her as follows:

Besides, his wife offered a serious incentive for his cruelty, as she was a woman presumptuous beyond measure because of her kinship to the emperor, and had previously been joined in marriage by her father Constantine to his brother's son, King Hanniballianus. She, a Maegara in mortal guise constantly aroused the savagery of Gallus, being as insatiable as he in her thirst for human blood. Through the process of time, the pair gradually became more expert in doing harm, and through underhand and crafty eavesdroppers, who had the evil habit of lightly adding to their information and wanting to learn only what was false and agreeable to them, they fastened upon innocent victims false charges of aspiring to royal power or of practising magic.⁴⁶

In fact, it seems that Constantina had gone through quite a metamorphosis during her turbulent life. Contemporary sources give us reason to think that life itself had changed her. As a young girl, she was the good daughter and the grand daughter who honoured the religion introduced by her father and his mother Helena. She was an unusually devout Christian who persuaded her father to build a basilica for Saint Agnes in her name. Later she was described as a nasty and bitter lady. She could initially have reacted negatively against Christianity in 337 AD, when her first husband, Hannibalianus – her cousin and the son of Constantine's brother Dalmatius – was killed in an uncontrolled massacre of members of the Imperial family after the death of Constantine the Great. She had invested grand hopes in him as a future Emperor, and apparently the marriage was harmonious. Hannibalianus had remained a pagan, and he was King of Pontus, a country along the southwest coast of the Black Sea. It would seem less likely that during the events immediately following the massacre of her husband, Constantina would have felt motivated or gratefully Christian enough to erect a basilica in honour of the virgin Saint Agnes, adjoined to a mausoleum planned for her own burial.

The only two princes to have survived this

massacre, were the two sons of Julius Constantius (another brother of Constantine), the twelve-year-old Julian and the six-year-old Gallus. In 350 Constantina entered a second marriage with her cousin Gallus (twenty years her junior), who in spite of close ties to his pagan brother Julian the Apostate, remained a zealous and uncompromising Christian. At the time of his marriage, Gallus took charge of the Eastern provinces and the couple moved to Antioch. This second marriage of Constantina's became notorious for the documented cruelty which, as we have already seen, was expressed by both partners.⁴⁷

CONCLUSION

So far we have created more questions than answers. We cannot be completely sure of the age, or of the religious iconography of Santa Costanza. Earlier scholars have not taken contemporary sources seriously enough, as the presentation of prime sources parallel to the state of research makes obvious. Furthermore, the donations of Constantine the Great (mentioned in the *Liber Pontificalis*, together with the other statements), show that the basilica of Saint Agnes must have been built before 335. It must have been finished enough for the celebration of the mass before the pontificate of Silvester I ended. Constantine the Great had erected the basilica on request of his daughter Constantina, at this stage a devout and passionate admirer of the little Roman virgin Saint Agnes. The contemporary historian Ammianus Marcellinus does not mention what is endlessly repeated among the scholars: that, after her death in Bithynia, Constantina was taken to Rome and buried in her mausoleum. But he does say that in 360 Helena, wife of Julian the Apostate, was taken to his villa at Via Nomentana to be buried next to her sister Constantina; and this, without one word about a mausoleum. The first time the mausoleum is mentioned in connection to Constantina and the basilica of Saint Agnes, is in the fifth century.

We cannot rule out the possibility that the

present construction of Santa Costanza really belongs to the second half of the fourth century, and that it was not originally built as a mausoleum for and by Constantina. It is obvious that the result from one single sample of mortar has to be judged carefully. More results are needed, both from Santa Costanza and from the ruins of the *coemeterium* basilica of Saint Agnes, before we can be confident of the chronology. The wall constructions of the basilica of Saint Agnes and Santa Costanza are entirely different.⁴⁸ For further clarification on this point a comparative chemical analysis of the mortar is also needed. Chemical “fingerprints” of the mortar could identify different building stages. However, at this stage it seems that Jürgen Rasch may have been too quick and too harsh in his criticism of David Stanley.

The iconography is another challenge for the interpretation of Santa Costanza. There is no definite proof that the scenes depicted were illustrations of the Old or the New Testament. Regardless of the chronological confusion, with the repeated images of dolphins and Bacchus in the mosaics of the cupola and the ambulatory, there are two possibilities for interpretation. One is that Santa Costanza really was erected for and by pagans. The new date suggested by the mortar analysis makes it possible that the building was erected by Julian the Apostate, husband of Helena, and brother-in-law of Constantina, who reigned as Emperor between 361 and 363. He was, after all, famous for his active resistance against Christianity and his wish to restore the pagan beliefs of the Empire. Then again, the combination of dolphins and Bacchus is not typical of the Roman death cult at this time. The other possible explanation is that the dolphins and Bacchus really are Christian symbols. Although he has been ignored and forgotten, the Christian martyr Saint Lucianos may provide the key to solving many of the remaining questions. Lucianos fits in chronologically, and, through his close associations with the Constantinian family, is thoroughly a part of the historical context. This compromise could solve a lot of the remaining questions.

Two more questions remain to be answered. If Santa Costanza was a posthumously erected mausoleum for Constantina and Helena, where then were the two sisters originally buried in 354 and 360 AD? In this we will have to consider the original functions of the triconch and the apse-like construction in the nave of the basilica of Saint Agnes. The mystery of the location of the Baptistery, mentioned during the pontificates of Silvester I and Bonifatius I, also needs to be solved. The most likely suggestion is that the baptistery was identical to the apse-like structure in the nave of the basilica, and that the two sisters were first buried in the triconch in the immediate vicinity of the basilica of Saint Agnes.

In all this confusion we are certain of one thing: it is premature to claim that Santa Costanza was erected between 337 and 350 as a mausoleum for and by Constantina, daughter of Constantine the Great.

NOTES

¹ I want to express my gratitude to Mikael Bøgh Rasmussen, for keeping me informed about the most recent state of research, and for inspiring me to write this article.

² Rasch, 155-156.

³ Frutaz, 212-213.

⁴ Rasmussen.

⁵ Frutaz 199-208, Stanley 111, and Rasch present excellent surveys over the vast literature on Santa Costanza, and the state of research.

⁶ Scholars are even disputing this name, in spite of the fact that the saint is clearly called Constantina in important prime sources, like Ammianus Marcellinus and in the acrostic inscription, Cf. p. 29.

⁷ Michel, 1-3.

⁸ Other similar circus shaped structures are to be found at 1) Santi Apostoli, later San Sebastiano, 2) San Lorenzo, 3) SS Pietro e Marcellino, which housed the mausoleum of Saint Helen, mother of Constantine the Great, 4) the Basilica della via Ardeatina, and 5) at the Basilica anonima della via Prenestina, Cf. Focchi Nicolai, 57.

⁹ Frutaz, 42-43.

¹⁰ Frutaz, 200, note 3.

¹¹ Ferrua, 281-290.

¹² Rasmussen, 22-23.

¹³ Rasch 2000, 156, says that J.J. Rasch, & A. Arbeiter,

Das Mausoleum der Constantina in Rom, Spätantike Zentralbauten in Rom und Latium, IV Volume, will go into print soon.

¹⁴ Cf. Wilpert and Schumacher 1973, 52-55.

¹⁵ Stern 1958, 160-166.

¹⁶ *Liber Pontificalis*, 180. Eodem tempore fecit (Constantinus) basilicam sanctae martyris Agnae ex rogatu filiae suae et baptisterium in eodem loco ubi et baptizata est soror eius Constantia cum filia Augusti a Silvestro episcopo, ubi et constituit donum hoc.

¹⁷ *Liber Pontificalis* I, 180, Patenam ex auro purissimo, pens. lib. XX, Calicem aureum, pens. lib. X; coronam farum cantharum ex auro purissimo cum delfinis XXX, pens. lib. XV; patenas argenteas II, pens. sing. lib. XX; calices argenteos V, pens. sing. lib. X; fara cantara argentea XXX, pens. sing. lib. VIII; fara cantara aurocalca XL; Cerostata aurocalca argentoclosa sigillata XL; Lucerna aurea nixorum XII super fontem, pens. lib. XV.

¹⁸ *Liber Pontificalis* I, footnote 80, 196.

¹⁹ *Liber Pontificalis* I, XXXIII Silvester (314-335), 170-201.

²⁰ Restabat ut Caesar post haec properaret accitus, et abstergendae causa suspicionis, sororem suam (eius uxorem) Constantius ad se tandem desideratam venire, multis fictisque blanditiis hortabatur. Quae licet ambigeret, metuens saepe cruentum, spe tamen quod eum lenire poterit, ut germanum, profecta, cum Bithyniam introisset, in statione quae Caenos Gallicanos appellatur, absumpta est vi febrium repentina. Cuius post obitum maritus contemplans cecidisse fiduciam qua se fultum existimabat, anxia cogitatione quid moliretur haerebat. Ammianus Marcellinus, XIV, II, 6.

²¹ Inter quae Helenae coniugis defunctae suprema (Julianus) miserat Romam, in suburbano viae Nomentanae condenda, ubi uxor quoque Galli, quondam (soror eius), sepulta est Constantina. Ammianus Marcellinus, XXI, 1, 5.

²² "Constantia virgo ... patres et fratres Augustos rogat, ut basilica beatae Agnae construeretur et sibi illic mausoleum collocari praecepit, *Acta s.s. Jan. II*, p. 353, Michel, 2.

²³ *Liber Pontificalis* I, 227, Veniens autem dies proximus Paschae praesumpsit Eulalius, eo quod ordinatus fuisset in basilica Constantiniana, et introivit in Urbem et baptizavit et celebravit Pascha in basilica Constantiniana; Bonifatius vero, sicut consuetudo erat, celebravit baptismum Paschae in basilica beatae martyris Agnae. Hoc audientes Augusti utrumque miserunt et erigerunt Eulalius et missa auctoritate revocaverunt Bonifatium in urbem Romam et constituerunt episcopum; Eulalius vero miserunt foris in Campaniam.

²⁴ *Liber Pontificalis* I, 263, Hic absidam beatae Agnae quae in ruinam iminebat et omnem basilicam renovavit.

²⁵ *Liber Pontificalis* I, 323, Eodem tempore fecit ecclesiam beatae Agne martyris, Via Numentana, miliario ab urbe Roma III, a solo ubi requiescit, quem undique ornavit, exquisivit, ubi posuit dona multa. Ornavit autem sepulcrum eius ex argento, qui pens. lib. CCLII; posuit

desuper cyburium aereum deauratum, mire magnitudinis; fecit et gavatas aureas III, pens. sing. lib. sing.; fecit abside eiusdem basilicae ex musibo, ubi etiam et multa dona optulit.

²⁶ Frutaz, 45-47.

²⁷ Ibi quoque singulari ecclesia Constantia, Constantini filia, requiescit. De locis sanctis Martyrum, see Valentini-Zucchetti, II, p. 115. Cf. Frutaz, 106.

²⁸ aecclesia sanctae Constantiae iuxta eandem sanctae virginis basilicam. *Liber Pontificalis* II, 163.

²⁹ Frutaz, 201, footnote 201, Anno dominico M.CC.LVI indictione XIII eo die quo statio beati Vitalis celebratur, Dñs Alexander PP. IIII consecravit altare beate Constantie filie Constantini imperatoris, in quo cor/pora Athice, Artemie et Merentiane virginum XPI cum corpore eiusdem beate Constantie ca/pilli gloriose Virginis Marie, particula vestimenti XPI, reliquie sanctorum Saturnini et /Sisinnii, aliorumque sanctorum et sanctarum XPI pia devotione et debita veneratione recondimur, cui conse/crationi tota romana curia interfuit, Stephanus prenestinus, episcopus Tusculanus, Ugo tituli sancte /Savine, Johannes tituli sancti Laurentii in lucina presbyteri cardinales, Johannes sancti Nicolai in carcere tul/iano, Petrus sancti Georgii ad velum aureum et Octobonus sancti Adriani cardinales / Episcopus Marocensis et Laurentius arciepiscopus Sclavinensis interfuerent cum aliis pluribus reli/giosis et viris honestis residente domina Lucia proabatissa Beate Agnetis, domina Teodora /prioressa, Jacoba devota monialis et sacrista et Teodora cum toto / conventu ipsius tres anni cum tribus quadragensis/auctoritate sedis apostolice omnibus / ad hunc locum devote accedentibus indulgentur/.

Anno domini M.CC.LVI indic. XIII mense februarii die VI, Laurentius arciepiscopus Sclavinen /sis et episcopus marocensis de spetiali mandato Dñi Alexandri III PP. transtulerunt corpora beatarum virgi / num XPI Constantie, Actice et Artemie, ubi meritis sanctarum ipsarum multi languores multaeque infirmi /tates sanate fuerunt ac incitamento virtutum sanctarum ipsarum per apostolicam sedem omnibus ad hunc locum de /vote accedentibus sua crimina relasantur rectis corde.

³⁰ Appresso alla [sopra] scripta chiesa de Sancta Agnesa è una capella di Sancta Chostanza, tonda, con colonne doppie a coppie con begli archi e nella volta bellissimi musaichi con figure piccole in perfectione et con fogliami et alberi et molti spiritegli che navicano in diverse maniere, il quale è il più vacho, gratioso et gentile musaico non che di Roma, ma di tutto il mondo; et datorno uno andito in volta con musaicho nella volta molto piacevole, con animali, uccelgi et fogliami et altre gentileze. Item una sepoltura di porfido con coperchio storiata di figure et fogliami per tutto intorno. Citation from Frutaz 111; the source was *Archivio della Soc. Rom. De storia patria* IV, p.575, cf. Michel, 7.

³¹ This reconstruction differs so radically from the earlier documentation that it is not considered trustworthy. It is now also generally agreed that his documentation of the floor mosaic representing Bacchus riding on a mule, surrounded by Bacchants, and vine, is the result of a misunderstanding.

³² For a full survey of the Renaissance sources, see Frutaz, 202-205. Frutaz offers a chronological list of those early documents (such as the productions of Francesco d'Hollanda) between 1539 and 1553; in 1515 the Andreas Coner writes on one of his drawings "Templi Bacchi apud Santam Agnesciam"; Among those describing the interior was Mariano da Firenze: "Bacchi Templum, totum miro ac pulcro opere musivo ornatum... in quo sepulcrum nevandi Bacchi est ad instar archæ de Bacchi"; Sebastiano Serlio wrote in 1543 "Piante e spaccato del tempio di Baccho." Andre Fulvio, Bartolomeo Marliano, Sebastiano Serlio, Giorgio Fabricius, Lorenzo Schrader, Onofrio Panvinio, and Antonio Bosio. Bosio, in his *Roma sotterranea* from 1632, describes the interior as follows: A temple of spherical form, with a dome supported by 24 columns. In the cupola there are some mosaic figures in ecclesiastical clothing. Most of this mosaic is missing, and one cannot, therefore, interpret the different narratives represented. But in the middle of the dome and in the vaults under the portico, one can still discern "che sapiunt gentilitatem, come imagini di Baccho, e Piroti pieni di uve, onde da gli antiquari è creduto che questo fosse un'antico tempio di Baccho, come fra gli altri scrivono".

³³ Sketches from the Marcus Library Collection in Venice, include rectangular little scenes in the second frieze above the dolphin candelabras, *CO. Ital.* IV, 149, fol. 19, Michel, Tafel III.

³⁴ Wilpert and Schumacher, 52-53; Cf. Frutaz.

³⁵ Project coordinator Åsa Ringbom, department of Art History, Åbo Akademi, geologist Alf Lindroos, Department of Geology and Mineralogy, Åbo Akademi, physicist Jan Heinemeier, the AMS 14C laboratory, Aarhus University, archaeologist John R. Hale, Department of Anthropology, University of Louisville, Kentucky, and archaeologist Lynne Lancaster, Department of Classics, University of Ohio, Athens.

³⁶ Jan Heinemeier et al. 1997; Åsa Ringbom 1997, Åsa Ringbom et al. 2001; John R. Hale et al. 2003; The method has also been presented as a poster session at Harvard in the AIAC 2003 conference August 24.

³⁷ Ringbom & Hale, forthcoming.

³⁸ Cartari, p. 353, nave di Baccho "e vedesi à tempi nostri anchora quasi la medesima falla a bellissime figure di mosaico in Roma nella chiese ora di santa Agnese, a già tempio de Bacchio". Frutaz believes that this image was to be found among the river figures in the lower frieze of the cupola.

³⁹ Ma soprattutto mirauagliosa cosa questo allintuito se ripraesantava, Imperoche lartifice scalpatoe perspicuamente hauea incircuito excauato sopra la corpulentia della crystallea lampada, de opera cataglyphæ, o uero lacunata una promptissima pugna. De infantuli sopra gli strumoli & præpeti Delphini aequitanti, Colonna, 1499, sine pagine.

⁴⁰ Foucher, 697.

⁴¹ Nilsson, 66.

⁴² Ringbom & Hale, forthcoming; Deichmann 1967.

⁴³ Herodotus, Book I, 23-24.

⁴⁴ Usener, 168 f.

⁴⁵ Usener. 170.

⁴⁶ Liber XIV 1#2, Cuius acerbitati uxor grave accesserat incentivum germanitate Augusti turgida supra modum, quam Hanniballiano regi fratris filio antehac Constantinus iunxerat pater, Megaera quaedam mortalis, inflammatrix saevientis assidua, humani cruoris avida nihil mitius quam maritus. Qui paulatim eruditiores facti processu temporis ad nocendum, per clandestinos versutosque rumigerulos, compertis leviter addere quaedam male suetos, falsa et placentia sibi discentes, affectati regni vel artium nefandarum calumnias insontibus affigebant," see further XIV 7#4, 9#3, 11# 6,22.

⁴⁷ See also Gibbon II. 246, 258-259, 267, 277-278; Gibbon III, 101-102.

⁴⁸ See the *Materiale tecniche dell'edilizia paleocristiana a Roma*, catalogue 2, 207-209, and catalogue 11, 240-241. Cf. Tavola I and Tavola XI.

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