

# THE CONSERVATION HISTORY OF MOSAIC PAVEMENTS AT THE CATHEDRAL SITE IN POREČ: 1862-1990

ANN TERRY

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Ann Terry  
Wittenberg University  
Springfield, Ohio  
USA

*The Eufrasian cathedral site in Poreč is rich in mosaic pavements from several successive phases of early Christian building. This article relays the history of their conservation. They were restored three times since the 19th century, under the Austrian (1862-1918), the Italian (1918-45) and the Yugoslav governments (1945-1991). The article details the nature of these restorations, the final two of which were particularly invasive, limiting the value of the pavements as archeological data.*

The Cathedral of Eufrasius at Poreč (northwest Croatia) is exceptionally rich in materials from the early Christian and early Byzantine periods.<sup>1</sup> In addition to the famous architectural complex (basilica, baptistery, atrium, episcopal chapel, *cella trichora*), built in its final form and furnished with marbles and wall mosaics by Bishop Eufrasius in the middle of the sixth century (Fig. 1), the site preserves archaeological remains from

several earlier phases of building.<sup>2</sup> Chief among these are mosaic pavements from at least three and possibly four different periods: Eufrasian, Pre-Eufrasian (fifth century), First Basilica (late fourth century), and, possibly, Roman (third or early fourth century).<sup>3</sup> Pavements from the First Basilica and the Pre-Eufrasiana survive in abundance. Most are located at the north site (Fig. 2), an enclosed area between the basilica and the sea

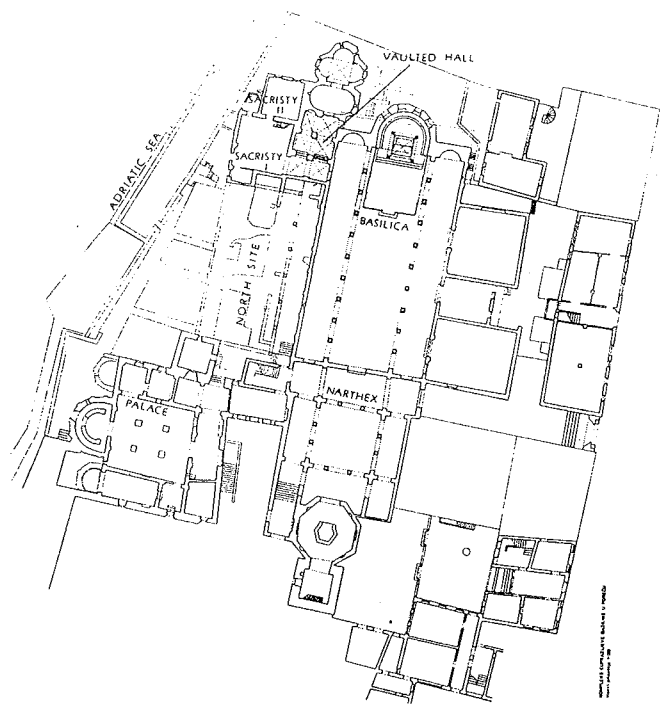


Fig. 1: The Cathedral Site at Poreč, ca. 1960, Annotated (Courtesy of the Institut za povijest umjetnosti, Sveučilišta u Zagrebu, planoteka 2899)



Fig. 2: The North Site, 1994 (Photo: Author)

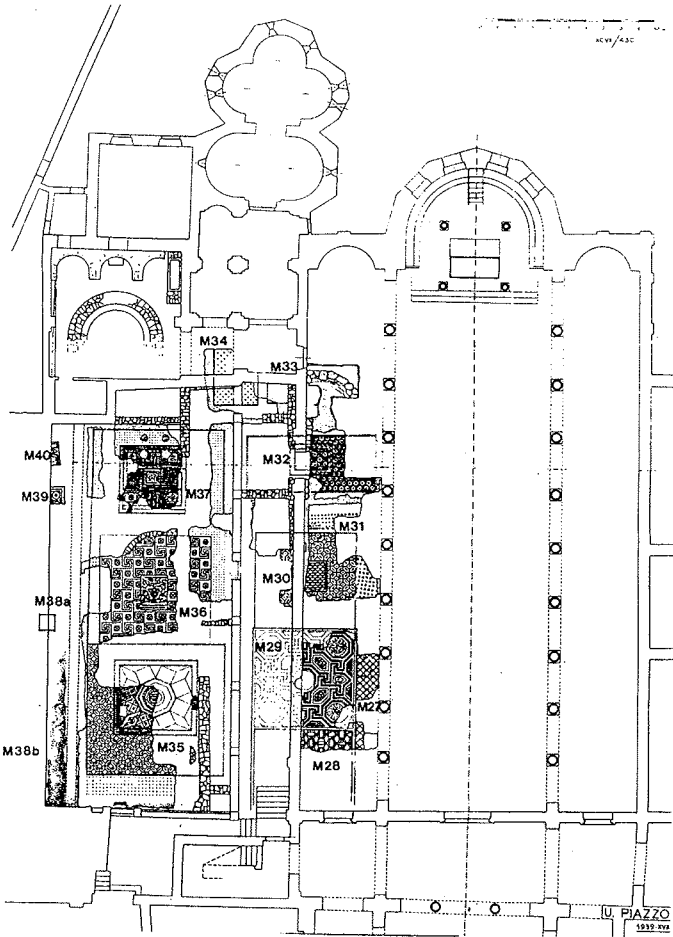


Fig. 3: Plan of the Mosaic Pavements at the North Site by Piazza, 1939, Annotated Courtesy of the Soprintendenza-Trieste

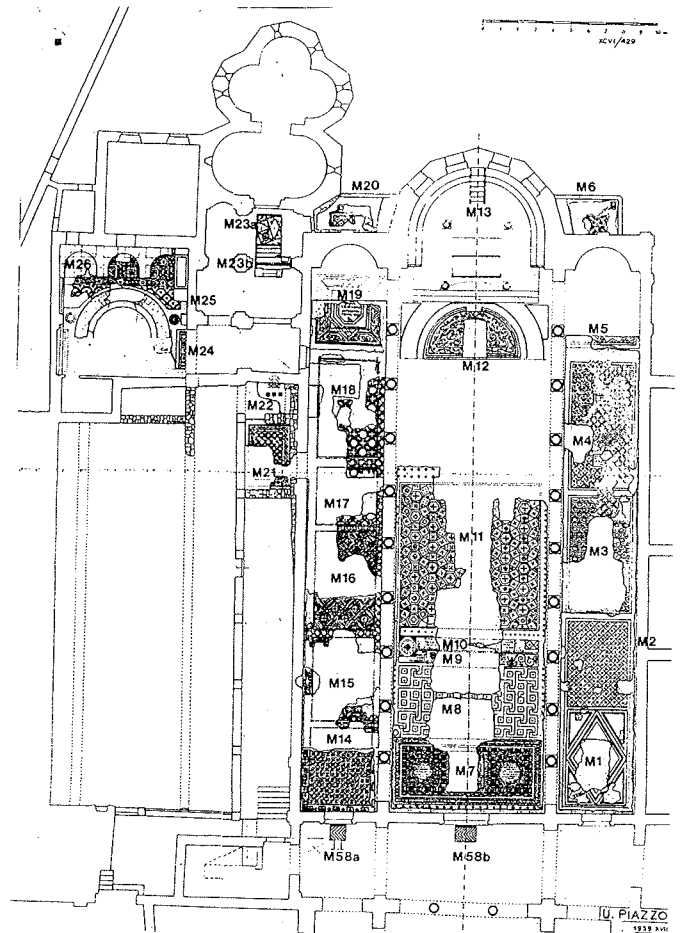


Fig. 4: Plan of Pre-Eufrasian Mosaic Pavements under the Basilica, Vaulted Hall, and Sacristy I, by Piazza, 1939, Annotated (Courtesy of the Soprintendenza-Trieste)

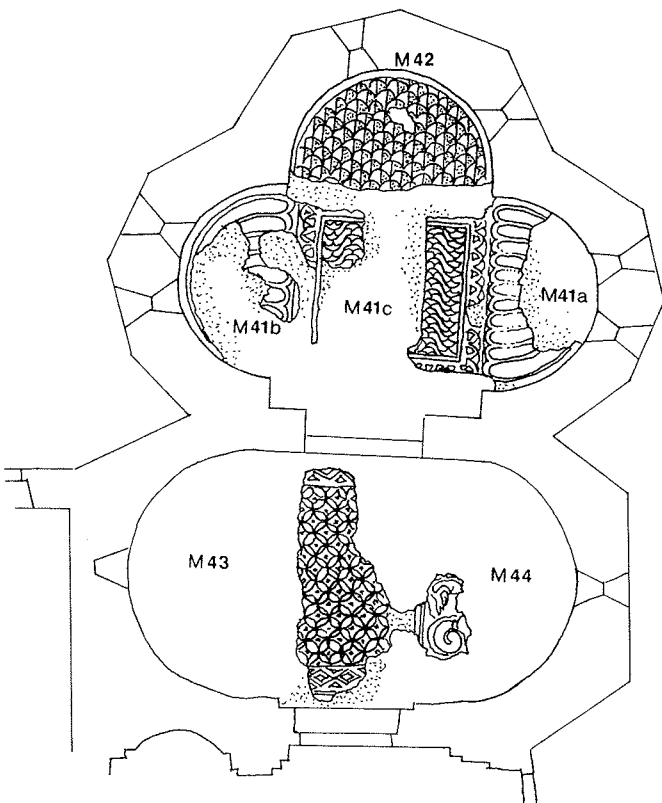


Fig. 5: Plan of Eufrosian Mosaic Pavements in the Cella Trichora, Redrawn from Piazza (1939), and annotated.

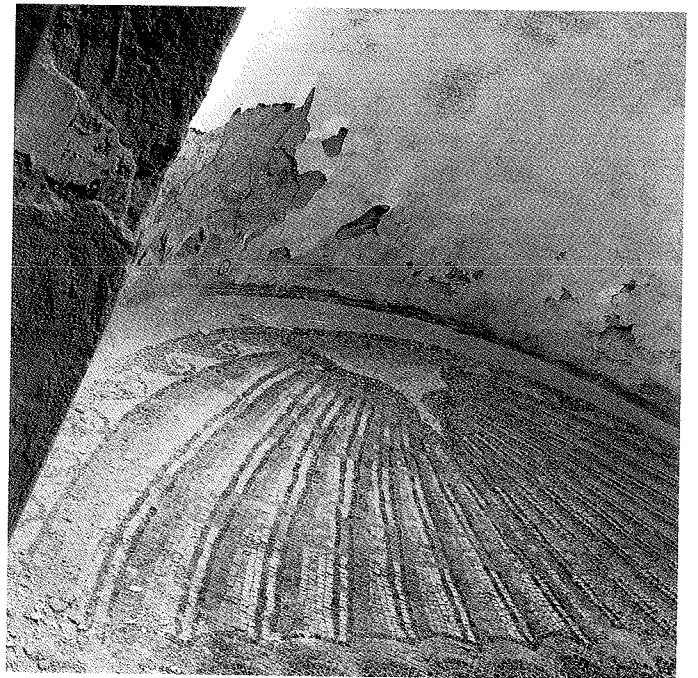


Fig. 6: Mosaic Pavement in the South Apse of the Basilica (Photo: author)

which preserves remains of earlier phases of building (Fig. 3), or under the present basilica or sacristies (Figs. 4, 10, 13). Others, stripped from their original location, are displayed in various parts of the complex. Eufrasian pavements survive mainly in the *cella trichora* (Fig. 5), the south apse of the basilica (Fig. 6), and in fragments located in the vaulted hall. In addition to their intrinsic value, and the significance of their donor inscriptions to ecclesiastical historians, these mosaics are of paramount interest to archaeologists. As pavements associated with walls and other architectural features, they ought to provide vital material evidence about a site that is both archaeologically complex and one which has been poorly documented. And, given their extensive survival, both in chronological terms and in terms of sheer area covered, they provide consistency in an otherwise fragmentary material record.

While it is well known that the mosaic pavements have been restored, few realize the extent to which they have been altered. Mosaic pavements were the target of three major and separate campaigns of preservation; first under Austrian rule, later under the Italian administration and, finally, under the post-war Yugoslav regime. These projects reflect the rapid shifts in sovereignty in Istria during the past century (Austrian to 1918; Italian to 1945; Yugoslav to 1991) which, together with the devastation of two world wars, have exacted a heavy toll on the region's cultural monuments. With respect to the pavements, little continuity existed between the restoration projects, and, although partial accounts have appeared in print, the collective record is meager. The brief and incidental notes found in excavation reports or other accounts give little indication of the radically invasive nature of the restorations. This article reconstructs the fate of the mosaics during that process, both to clarify the record and assess their value as archaeological evidence, and in hopes that a brave soul will yet undertake a serious and comprehensive corpus of the pavements.

Any discussion of the restorations must begin with Istria's particular geographic and climatic profile, which, as each successive administration has discovered, can be disastrous for coastal antiquities. Most of the Istrian peninsula is built on limestone karst, an irregular formation pitted with sinks, caverns and underground streams.<sup>4</sup> This limestone is one of Istria's most coveted products, drawing high prices on the world market and giving the hilltop towns of the interior and coastal villages their picturesque and pristine beauty, but it also plays a significant role in the destruction of archaeological sites along the shores of Istria. Sea water invades the fractures and broken crust of the karst formation where, working on the already naturally absorbent rock, it carves underground cavities, sinkholes and channels. The coastal areas are therefore especially subject to flooding from tides that vary considerably. The soil in the area, victimized by erosion, has drained off via the many subterranean passages in the limestone, creating, over time, disparities in the apparent depth of bedrock, and a remarkable variation in elevation figures different excavators and conservators have reported for mosaics *in situ*.<sup>5</sup>

At Poreč, this affects not just the low-lying north site - about 3 m below the surrounding present day ground level elsewhere at the complex - but many other parts of the complex also.<sup>6</sup> Long before any hint of excavations, flooding at high tide troubled officials at the cathedral, as documents from as early as the seventeenth century reveal.<sup>7</sup> Periodic construction of walls or quays reclaims some land, but neither can halt the penetration of water via caverns deep underground. At the north site, whose terrain the past century of excavations have reduced nearly to sea level, the problem is especially acute. As

F. Lanzoni wrote in 1924, and excavation photos throughout the century make clear, the site becomes a "slimy mire."<sup>8</sup> Sonje, who wrestled with these conditions for over 25 years, reported that with high tides and wind, the mosaics were routinely submerged beneath 80 cm of water.<sup>9</sup> The impossible conditions created by constant floods and unstable terrain spawned a series of unavoidable but successively more invasive measures for preserving the endangered mosaic pavements.<sup>10</sup>

**Austrian Period.** The first mention of Austrian interest in pavement mosaics, in 1862, was, surprisingly, at least two decades prior to any recorded excavation at the site.<sup>11</sup> Professor Friedrich Schmidt from Vienna, secured by the authorities to provide an expert opinion, suggested that the pavements located about a meter beneath the basilica might be lifted and repositioned (1862-D#0093). It can be determined from other sources that these pavements, which belonged to what is now recognized as the fifth century Pre-Eufrasian basilica, had been uncovered by workers during renovations under Bishop Antonio Peteani in 1846-47.<sup>12</sup> Following Schmidt's call for conservation, documents of the next thirty years are silent about the early pavements. Instead, interest in the 1870's and 80's focused on the remains of Eufrasian mosaics in the basilica itself. Exactly how much of these pavements survived is unclear, as the period leaves us with conflicting reports. Schmidt's opinion of 1862 had noted that they were so insignificant that a restoration would effectively equal a new fabrication, the funding for which would be prohibitively expensive (1862-D#0093). But other contemporary accounts, especially the visual, suggest otherwise. In 1869, Giovanni Righetti, an engineer involved with the restoration of the atrium, wrote approvingly of the "fairly nice" mosaics in the south aisle of the basilica (1899-D#0412: *ziemlich schön*). As a nineteenth century drawing by Giulio De Franceschi demonstrates (Fig. 7), fragments of several of the Eufrasian panels in each aisle had survived the middle ages.<sup>13</sup> Similarly, very detailed renderings in color done in 1876-77 and later published in C. Errard and A. Gayet, testify to the same.<sup>14</sup> And in 1874, Schmidt himself attached an opinion to the initial proposal sent to the CCD for repaving the church and sacristies to the effect that the surviving tracts must be conserved *in situ* (1878-D#14145).

Documents of 1879 record both a ministerial decree issuing approval for paving the nave of the basilica and attached chapels (1879-D#0436), and unspecified "complaints" regarding the treatment of the old pavement (1879-D#0532). The repaving of the basilica, which actually took place in 1880 or 1881, was regrettably accompanied by a near total loss of the original Eufrasian mosaics. They were replaced with ordinary slabs of Carrara marble simply mortared over a rubble floor (1898-D#1360; 1900-D#0302). While documents of the 1880's mention the repaving only briefly (1881-D#9110), by 1898 Natale Tommasi, an architect and engineer who was in charge of work at the site during the last decade of the century, displayed no such discretion when he fingered the civil architect D. Pulgher as the culprit who had discarded the invaluable remains of the original pavement. Others, notably Monsignor Paolo Deperis and Andrea Amoroso, concurred.<sup>15</sup> Deperis' excavations of 1889-90 are regarded as the "first" dig at the site. Amoroso, a Parentine lawyer and antiquarian who served as a correspondent for the CCD and was tremendously influential in work on site before the turn of the century, worked with Deperis.<sup>16</sup> Amoroso particularly deplored the destruction, noting that the Eufrasian tracts had been in poor condition, but not so much that they might not have been reconstructed in the future. As of this writing, the only tracts of the Eufrasian pavement still *in situ* in the basilica are the splendid panel in the south apse

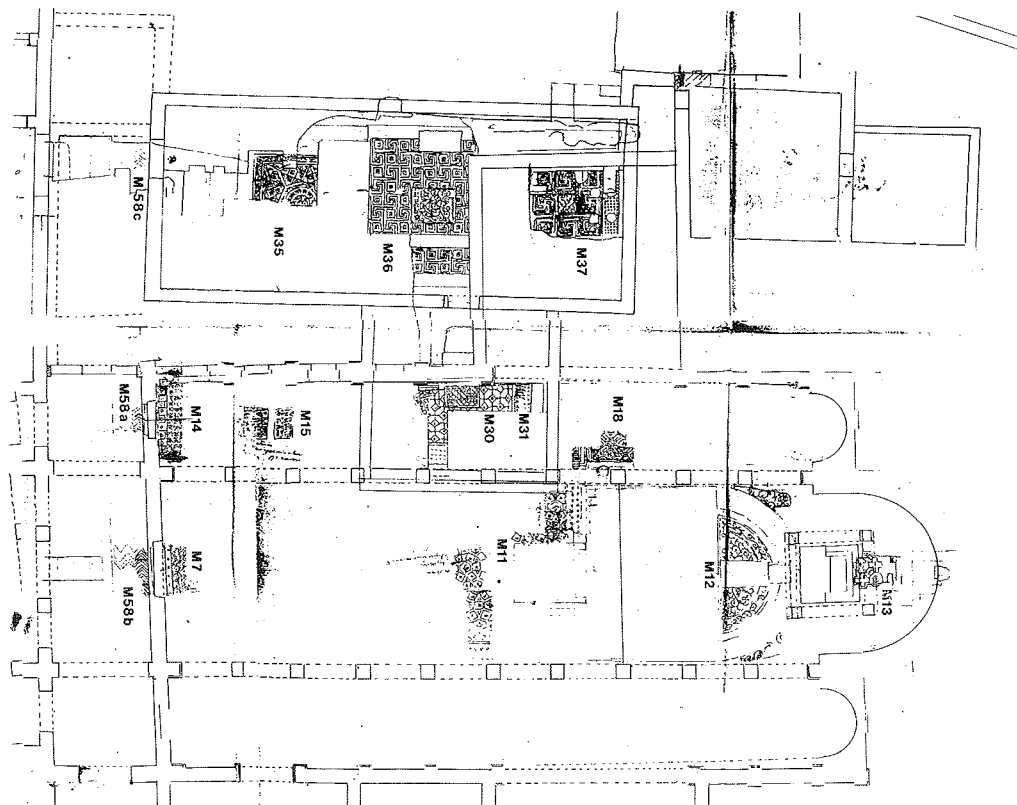


Fig. 8: Plan of Excavated Mosaic Pavements, ca. 1900, Annotated (Courtesy of the Centre Études Gabriel Millet - Photothèque École Pratique des Hautes Études - Sciences Religieuses, Sorbonne, Paris)

(M47, Fig. 6), found in 1937, and a meager few tesserae to the north of the northeast end of the chancel barrier.<sup>17</sup> Some portions of the eastern panel in the south aisle (M46, Fig. 7) remained *in situ* until 1977, when they were removed for Šonje's excavation of the area.<sup>18</sup> Šonje characterized their condition as poor, and noted the intention of authorities to restore them. They are preserved today as ten panels on display in the vaulted hall (Fig. 1).

By 1892, attention again returned to the more substantially preserved pavements under the basilica and at the north site. That year Amoroso won approval for his proposal for excavation and conservation (1892-D#0984). It is very probable that ensuing excavations of 1892-94 recorded in one of the documents (1895-D#22399), which exposed additional mosaics, were in point of fact not new excavations but rather the removal of earth first turned by Deperis, who had been forced by time and funds to immediately rebury many of his finds. Arrangements made for viewing the excavated mosaics included a shed roof constructed to the north of the basilica (1896-D#1433) and an iron construction in the nave (1896-D#1881). Concern was also expressed about the construction of air shafts under the pavements to allow for ventilation, but it is unclear whether this was done (1897-D#0670). A ministerial decree releasing the funds and Amoroso's profile notwithstanding, it would appear that this project was limited primarily to exposing tracts of pavement. At least there is no mention of actual restoration in the documents, and the formulation of plans for a comprehensive and "alternative" restoration appeared starting in 1896 (D#0722).

The new plan, devised by Tommasi and submitted in 1898 (D#1630), quickly became controversial. In 1899, we learn of his intention to have the pavements at the north site, those exposed to the elements and constant flooding, lifted from

their crumbling foundation and then reset at a level 40 cm. higher (1899-D#0214). The elevation of the endangered mosaics was initially approved by the CCD, but documents from 1899-1900 are filled with the debate this solution engendered. In particular, Tommasi and Amoroso, whose adversarial relationship peppers the documents during this decade, locked horns. While the experts argued, Tommasi brought the Venetian mosaic restorer Giovanni nobile Moro-Lin and two of his assistants to Parenzo both to restore the pavements and clean the newly restored wall mosaics (1899-D#0214; D#0218; D#0421).<sup>19</sup> Moro-Lin was set to work on pavements under the basilica, atrium and sacristy. One document detailed that the 9.3 square meters of "the oldest" pavement (i.e., First Basilica) was so restored, while 20.49 square meters of a second "Constantinian" pavement was restored (1899-D#0218). The term "Constantinian" was routinely applied to the Pre-Eufrasian Basilica in the late nineteenth century.<sup>20</sup> There is, to my knowledge, no published plan of the pavements as excavated at the turn-of-the-Century. However, the Millet collection at the Sorbonne preserves an unfinished plan of the complex furnished with rather detailed sketches of the exposed mosaics (Fig. 8).<sup>21</sup> The plan reveals that at least portions of the following had been excavated, and thus were likely the pavements restored: M7, M11-15, M18, M30-31 (all under the basilica); M58a-b (under the atrium, external paving with large brick tesserae); and probably M23a-b (under the sacristy). M30-31 date to the First Basilica while the others are associated with the Pre-Eufrasian phase.<sup>22</sup> But the external mosaics, given the intense debate, were put off limits. From November 23 to December 11, 1898, Moro-Lin cleaned the pavements at the north site in preparation for a restoration which, thanks to the cease-work order issued by the CCD, never took place. We learn of the condition of the pavements at the north site from

a report in which an embattled Tommasi tried to stem the rising tide of expert opinion opposed to his plan (1899-D#1807). The surface of the mosaics were extremely uneven, as the penetration and run off of sea water produced bulges and depressions. Many tesserae had detached from a base that was largely decayed. The colors of the stones were changing because they lay on damp ground which regularly flooded with high tide. In Tommasi's vision, Moro-Lin would make exact drawings of the pavements, and the tesserae would be lifted and placed on a new bed of concrete exactly as they had been originally, except 40 cm higher. Walls and other features, such as thresholds, would remain *in situ*. Tommasi's fear that the mosaics faced certain destruction was well founded, but his final plea indicates he misunderstood the archaeological nature of the objections (1900-D#0302). Given that the coast of Istria is "sinking" (rise in sea level), and the pavements no longer lay at their original level anyway, he argued, what would it matter if they were raised (1900-D#0302). The experts enlisted by the CCD prevailed in 1900, when a ministerial decree specified that the pavements were to remain *in situ*, and approved necessary repairs only (1900-D#1105). Thus, the work done during the Austrian administration involved excavation, cleaning, and restoration *in situ*. The final mention of pavements in the Austrian documents, in 1908, concerns arrangements for their viewing (D#1705). It appears in the context of a discussion of the cistern to the north of the basilica, which, filled with earth, rose high above the pavements of the north site. The document includes a sketch of the arrangement by which one viewed the pavements. As shown in Fig. 9, access to a construction with a shed roof and windows was provided by the rubble-filled cistern, sandwiched between the pavements and the basilica.

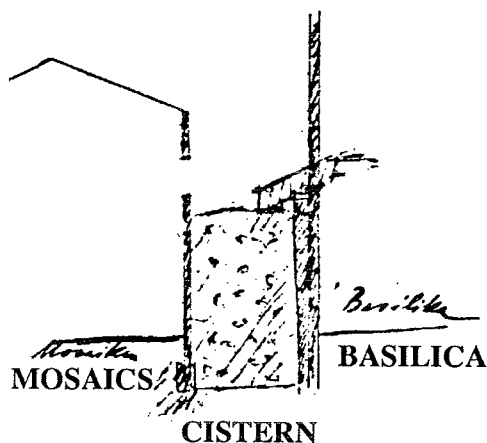


Fig. 9: Sketch of Arrangement for Viewing Mosaics (D#1705, 1908), Annotated

**Italian Period.** Very soon after they assumed custody of monuments in Istria in 1918, the Italians focused on the mosaic pavements.<sup>23</sup> Guido Cirilli, who directed efforts from 1918-22, concentrated on the Pre-Eufasian pavements under the north aisle of the basilica (M14-19, Fig. 4) and certain panels at the north site (M28-32, Fig. 3).<sup>24</sup> After the necessary excavation and cleaning, the mosaics were preserved. The Pre-Eufasian panels, found at a higher level than the others, were sustained on small brick walls (Fig. 10). Also in 1921, as part of a new pavement in the north aisle, a number of "hatches" (openings fitted with wooden covers) were constructed permitting a view mosaics preserved below, and providing improved ventilation.<sup>25</sup>



Fig. 10: Mosaic Pavements under the North Aisle, 1921 (Photo 307: Soprintendenza-Trieste)

Early in the 1920's, comprehensive action was taken on the pavements at the north site. A. Degrassi reported 1922, a date which, if accurate, must represent the very earliest beginnings of what became an extensive project to lift, restore and then reset the floor mosaics on new foundations.<sup>26</sup> The project took top billing in the early years of Forlati's tenure, particularly 1923 and 1924.<sup>27</sup> Most of the mosaics were reported as in poor condition, and the descriptions, although the published studies betray no knowledge of the Austrian efforts, echoed Tommasi's concern. The subsoil on which they rested, because of constant flooding and lack of ventilation, had been reduced to mud. Studies made in hopes of consolidating the subsoil without removing the pavements had been in vain. It was apparently because of the uneven level of ground rock-in some places lying 80-90 cm below the pavement, and in others completely level with it-that they decided to remove the mosaics. At this time, of course, Peteani's chapel of S. Mauro still projected from the north aisle, so the field of operations excluded the terrain on which it stood (Fig. 11). Lanzoni described the Italian plan as a "hornets nest" (*un vespaio*).<sup>28</sup> This construct of concrete and wire netting supported by piers created a basis for the mosaics, and it had the advantage of permitting water to circulate below the pavements. This operation involved digging a regular grid of trenches which, cutting through the archaeological layers, reached to bedrock.<sup>29</sup> In Fig. 12, from 1924, the site is stripped of mosaics, and pillars in brick, sub-structures to support the new concrete base for the mosaics, are in the process of being built.<sup>30</sup> While most of the work seems to have been completed in 1924, Bruna Tamaro, in a report of 1928, wrote that excavations for the "*sistemazione*" of the mosaics at the north site continued to 1926.<sup>31</sup> Thus one could give general dates of 1924-26 for the project. Unfortunately, while the process certainly involved removal of terrain, it apparently



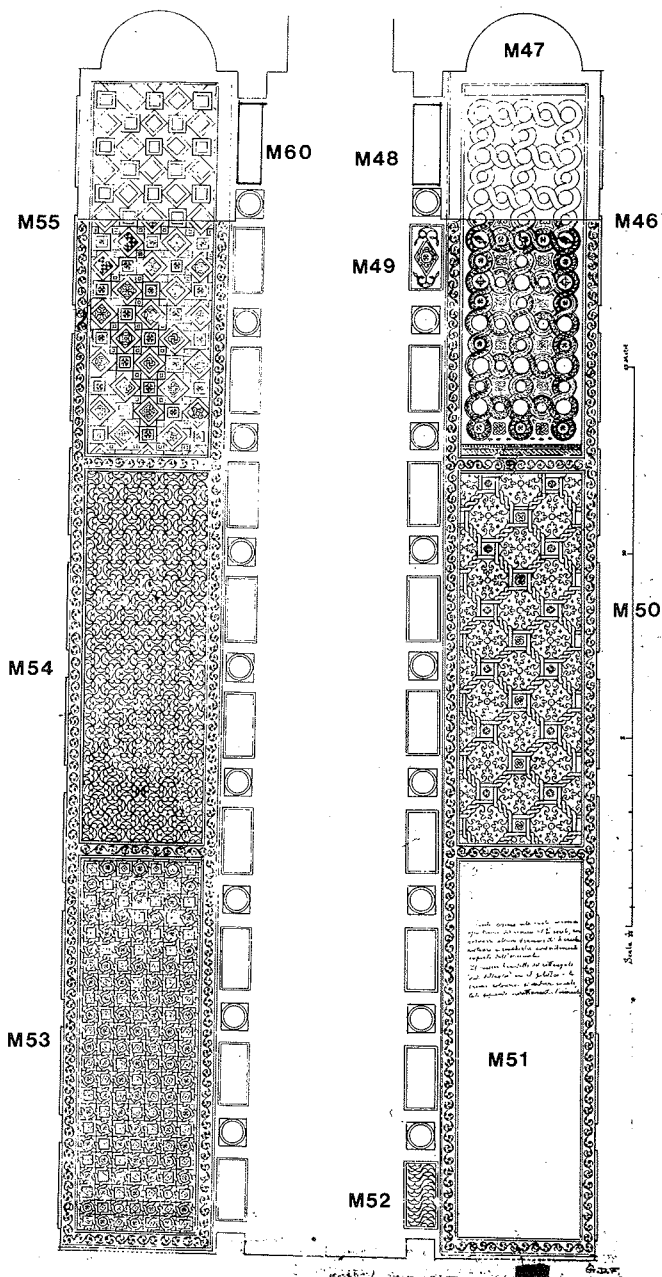


Fig. 7: Plan of Sixth-Century Eufrasian Mosaic Pavements by De Franceschi (before 1880), Annotated (Photo: Soprintendenza-Trieste)

did not include a systematic excavation, at least no record of such was published or preserved in archives. As for the pavements involved, most of M35 and M36, and parts of M37 were lifted and relaid, as well as undergoing a partial reconstruction. The mosaics beneath the chapel of S. Mauro were immune. Thus, providentially, most of M37 was unaffected.<sup>32</sup>

But the sea would not be appeased, as a mere decade later, in 1933, a report and proposal were submitted for dealing with the problem of flooding at the north site.<sup>33</sup> One suspects that the ubiquitous flooding was severe, because the otherwise scanty record of work in 1934 indicates that one area of floor mosaics was removed, restored and replaced.<sup>34</sup> As a parenthetical reference in B. Molajoli's excavation report of 1939-40 demonstrates, more than one segment of pavement relaid in the 1920's was removed and relaid a second time in the 1930's. He wrote that M35 and M36 (*i due scomparti di mosaico con emblemi e iscrizioni*) had been lifted and reset twice, first in 1921 and again in 1935-36.<sup>35</sup> In 1939, Piazza executed his plans of the various phases of floor mosaics, plans which, although

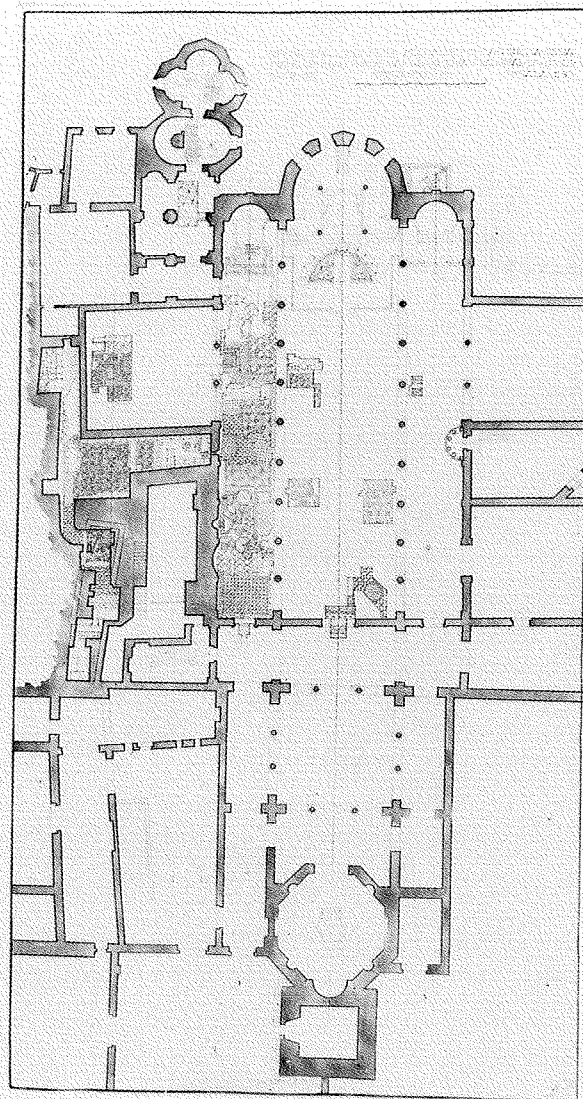


Fig. 11: Plan of Mosaic Pavements, 1922 (Photo: Soprintendenza-Trieste, 543)

no longer representative of what appears on site, remain the best set of drawings, and appear in most discussions of the site, including this one (Figs. 2-3). In addition to panels cited thus far, one can assume that all pavements drawn on Piazza's plans, for example M24-26, M21 and the by-then fully exposed set of Pre-Eufrasian pavements, mostly under the basilica, were cleaned and repaired *in situ* (M1-20, Figs. 4, 13). Also restored by 1939 were several small tracts of mosaics at the north site which had been left *in situ*: M33-34 (Fig. 3) and the southern halves of M39-40 (Figs. 3, 14).<sup>36</sup>

**Yugoslav Administration.** Immediately after World War II, when Istria passed from Italian to Yugoslav hands, attention again turned to the state of the mosaics. As early as 1945, the new authorities had begun to study the site.<sup>37</sup> The period from 1945-48 was a difficult transition for Istria, during which, at times, it seemed unclear to which sovereign the peninsula would belong.<sup>38</sup> The issue was not fully settled until 1948, at which point the casings built to protect the basilica during the war were removed. By the early 1950's, officials had identified

the floor mosaics of the north site as one of the two areas most critically in need of attention.<sup>39</sup> That the Italian efforts had failed was immediately apparent. Already in 1953 an “imperiled” part of the mosaics had to be removed, very probably part of M37.<sup>40</sup> The first step was an analysis of the incessant problems with flooding. The water rose up through underground passages to penetrate the foundation of M37 (Fig. 3), separating the mosaic from its base, and was destroying the mortar between tesserae. The water could not penetrate the concrete on which M35 and M36 were set, but their surface did flood, and the concrete base prevented any drainage. Consequently, algae collected on the surface, undermining the mosaics in a different way.<sup>41</sup> Šonje reported that an early attempt to resolve the problem was to fill the craters (*krateri*) through which the water was flooding with concrete, but water then seeped in through the eastern part of the mosaic, near M35, and was rapidly destroying it.<sup>42</sup> To their credit, the conservators attempted to attack the root of the problem with scientific studies of the geological and hydrogeological factors.<sup>43</sup> To find a solution to the problem of the mosaics was not simple, and we can follow the process through the different reports. A permanent inter-republic commission of specialists from a number of disciplines was formed to analyze the problem and propose solutions. Perčić, in 1958, noted that the commission assigned tasks to individual experts: tests were in progress on soil composition, ground water movement, and algae that developed on the site; and analysis of stone and original mortar had been finished.<sup>44</sup> But as early as 1956, Jenko had already realized that no optimal solution existed, only a choice among evils. Putting the mosaics on a cement base, as had the

Italians, conserved them in the sense that water could not penetrate up through the foundations. But flooding and the accumulation of water on top of the mosaics would still threaten their destruction. Placing the mosaics on a permeable basis would obviously not work either, since they would be destroyed by the tides. The authorities thought about placing the mosaics on a permeable base and then setting them at an incline, so that they drained more easily, a solution that would necessitate a good system of ventilation, and Draconian alteration of walls on the site. That solution was rejected, presumably because it would be so much at odds with modern preservation philosophy. A final possibility, explained apologetically by Jenko, would be to remove the original mosaics entirely and replace them with copies set in concrete. The originals would be safely stored until science had developed a method of dealing with the seemingly insoluble problem of rising seas and a karst terrain.

The last plan was adopted, albeit reluctantly. The mosaics targeted included M21, M35-37, and the small areas of M30 exposed at the north site (Fig. 3). For the second, and for some sections, third time, the mosaics were lifted and reset. When, exactly, the work was done is unclear, but effective bracket dates are 1954-69. The mosaics were extracted, a new drainage system installed, and copies of the mosaics laid on new slabs of concrete.<sup>45</sup> If we do not know when the work on the mosaics ceased, we do know the job was never fully completed. Copies were made and installed on site, but the originals were not properly consolidated and stored.<sup>46</sup> A fully operational mosaic workshop established in the basement of the episcopal palace, where they must have been both making the copies



Fig. 12: Restoration of Mosaic Pavements at the North Site, 1924, View to East (Photo: Soprintendenza-Trieste 1742)

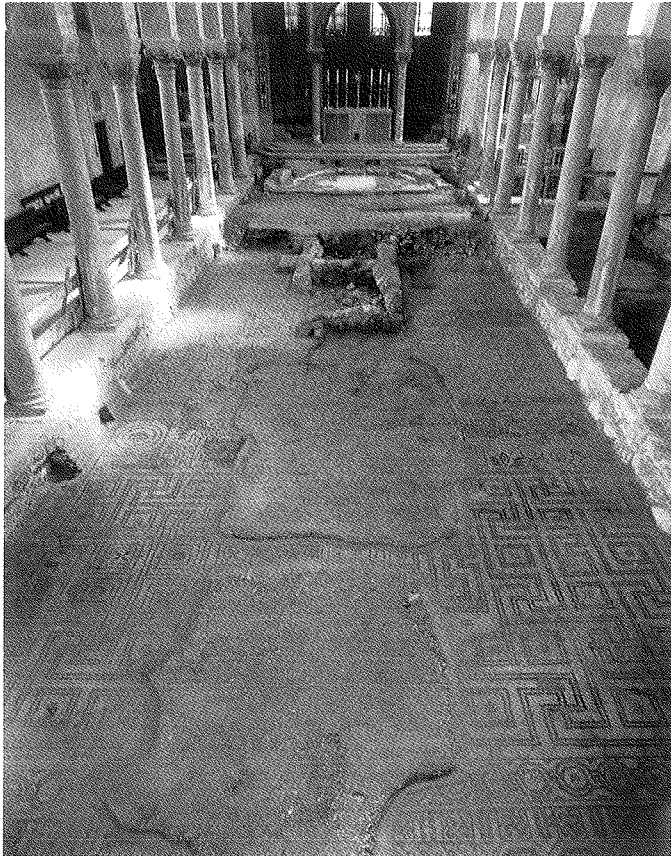


Fig. 13: Pre-Eufasian Mosaic Pavements Under the Nave of the Basilica, 1936 (Photo: Soprintendenza-Trieste 1742)

and reconstituting and preserving the originals, was abandoned at some point, probably before 1972. A number of panels, all originals, were left stacked up against the walls of the workspace in the episcopal palace; other panels yet were displayed in different parts of the complex. Some panels had not been fully set, as a variety of containers, grouped by color, still held large numbers of original tesserae.

The workshop remained virtually untouched until recently. After I. Matejčić, then director of the *Zavičajni muzej Poreštine* in Poreč (1991) and now director of the *Zavod za zaštitu spomenika kulture* in Rijeka (1994), initiated in 1991 the project of cleaning out the basement of the episcopal palace, M. Baldini, now the director of the *Zavičajni muzej Poreštine*, began the process of preserving the originals. The panels with originals were prepared for display in the episcopal palace, where they remain today.<sup>47</sup>

Some pavements excavated by Šonje, and attributed by him to the First Basilica, were restored *in situ*, such as: the expanse of M38b, paving with large brick tesserae; M38a, a small inset panel with colored tesserae; the northern halves of M39-40, which were very heavily restored and remade (Fig. 14).<sup>48</sup>

#### Summary

The pavements at Poreč have seen at least three campaigns of conservation and restoration. Substantial segments of the pavements were first excavated and restored under the Austrian administration. It is fairly clear that this repair and restoration affected (at least the excavated portions of) pavements under standing buildings (M7, M11-15, M18, M23a-b, M30-31, M58a-b). Out at the north site, M35-36 were cleaned and repaired, but they never received a comprehensive restoration. Since Tommasi's plan to elevate the mosaics at the north site was foiled, it is unlikely, in my opinion, that the work done

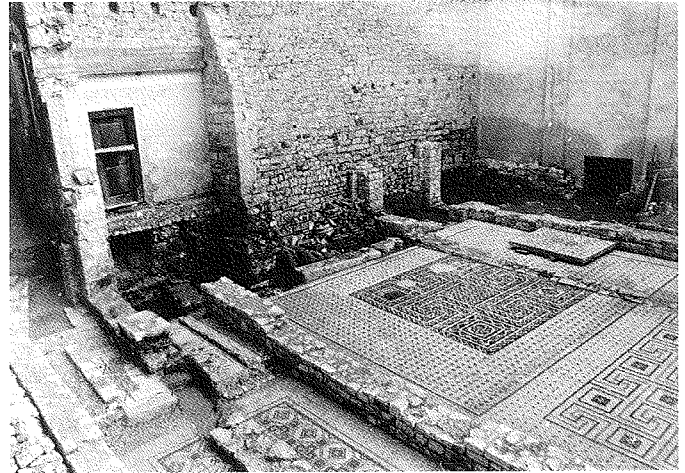


Fig. 14: North Site Mosaic Pavements, Replacement copies, after 1968 (Courtesy of RZZSK), M39-40, lower left

greatly altered the pavements. The same cannot be said of the surviving Eufasian pavement, then *in situ*, most tracts of which were removed and lost. As much as one might decry Tommasi's plan, the alternative and less invasive measures were unsuccessful, and the recalcitrant problem passed to an Italian administration. Inside the basilica, they restored and conserved both panels from the Pre-Eufasian basilica (M14-19, some of which had also been treated during the Austrian administration; Fig. 4) and the First Basilica (M28-32; Fig. 3). The brick structures built to support the Pre-Eufasian panels must have required removal of the pavements first. While such a measure is by definition invasive, if done properly it might not have altered their original level; we lack sufficient information about the process to make a full assessment. No such uncertainty, however, surrounds the external pavements at the north site. The lifting, resetting and replacement on beds of concrete of most of M35-36 and parts of M37 was invasive, and while it is likely every effort was made to reset them at an appropriate height, the effect of this measure on their archaeological value must have been considerable. Nor were the scientists and specialists convened during the early years of the Yugoslav administration able to devise a solution, necessitating a second, and even more dramatic, invasive measure. The removal of most of the pavements at the north site (M32, M35-37) and their substitution with copies constituted a final severing of the pavements from their archaeological context.<sup>49</sup> That these collective measures have largely nullified the archaeological value of the mosaic pavements at the north site is regrettable, but a fact.

This brief preservation history of the mosaic pavements at Poreč has been intended as a compilation of data which might be useful to archaeologists and others who study the Eufasiana. While this recounting of the misfortunes of the site may be a sobering tale, it is not intended as a compilation of data which might be useful to archaeologists and others who study the Eufasiana. While this recounting of the misfortunes of the site may be a sobering tale, it is not intended as criticism of the decisions of our predecessors. Quite to the contrary, one is humbled by the thought of several generations of specialists from as many sovereign nations laboring under impossible conditions to preserve and protect the pavements, thus drawn into battle with such elemental forces as the rising of the sea and devastating cycles of political conflict.



<sup>1</sup>I wish to thank several institutions which have been crucial in providing records, photographs, drawings and documents used in this study: the *Zavod za zaštitu spomenika kulture* in Rijeka, Croatia (hereafter ZZZSK); the *Soprintendenza per i beni ambientali architettonici, artistici e storici del Friuli-Venezia Giulia* in Trieste (hereafter *Soprintendenza-Trieste*); the *Allgemeines Verwaltungsarchiv* of the *Österreichisches Staatsarchiv* in Vienna; and the *Centre d'Études Gabriel Millet - Photothèque (École Pratique des Hautes Études-Sciences Religieuses)* at the Sorbonne in Paris. This study also reflects fruitful collaboration with F. Gilmore Eaves, I. Matejčić, and T. Muhlstein. Dr. Muhlstein was also kind enough to read a draft of the article and offer many helpful comments.

<sup>2</sup>For general accounts of the complex, see B. MOLAJOLI, *La basilica eufrasiana di Parenzo* (Padua, 1943); G. BOVINI, *Le antichità cristiane della fascia costiera istriana da Parenzo a Pola*, (Bologna, 1974), 7-110; G. CUSCITO and L. GALLI, *Parenzo* (Padua, 1976); and A. TERRY, *The Architecture and Architectural Sculpture of the Sixth-Century Eufrasius Cathedral Complex at Poreč* (Ph.D. dissertation: University of Illinois, 1984), 481-81 for bibliography. A brief summary of the main literature on the site may be found in A. ŠONJE, "Arheološka istraživanja na području Eufrazijeve bazilike u Poreču," *Jadranski zbornik*, 19 (1969), 249-51. The recent tourist publication by M. PRELOG, *The Basilica of Eufrasius in Poreč* (Zagreb, 1986) offers excellent photographs.

<sup>3</sup>For the archaeological chronology of all phases at the site, in addition to n. 1 above, see ŠONJE, *Crkvena arhitektura zapadne Istre* (Zagreb, 1982), 21-36; *Bizant i crkveno graditeljstvo u Istri* (Rijeka, 1981), 7-22; Part of recent dissertation by F. GILMORE EAVES details the phases up through the First Basilica: *Annulling a Myth: A Reassessment of the Earlier Phases of the Eufrasian Basilica at Poreč, and of the Evidence for Domus Ecclesiae* (Ph.D. dissertation: University of Nottingham, 1993), 43-248. A reconstruction and critique of the archaeology of all phases at the site is currently in progress by Terry and Gilmore Eaves.

<sup>4</sup>On karst, see "Karst," *Encyclopedia Britannica*, 11th edition, vol. 15-16, 683. Further insights may be found in: J. ROGLIĆ, "Depth of Water Circulation and Dimensions of Cavities in the Dinaric Karst," in D. Gavrilović, ed., *Problems of Karst Hydrology in Yugoslavia* [Memoirs of Serbian Geographical Society, 13] (Belgrade, 1976), 29-40; M. HERAK, "Karst of Yugoslavia" in M. HERAK and V.T. STRINGFIELD, *Karst. Important Karst Regions of the Northern Hemisphere* (Amsterdam, 1972), 24-83, with an excellent bibliography; and J. TIŠLJAR, "Tidal Flat, Lagoonal and Shallow Marine Carbonate Sediments in the Upper Jurassic and Cretaceous of Istria," *Acta Geologica*, 9/5 (1978), 159-94.

<sup>5</sup>An example, using figures from Deperis, Frey, Gnirs, and Šonje. Deperis and Šonje, whose excavations stand at opposite ends of a century, wrote that M38b (Fig. 3) stood at a lower elevation than M35-37, by 30 and 12 cm. respectively. See P. DEPERIS, "Parenzo cristiana," *Atti e memorie della società istriana di archeologia e storia patria*, XIV (1898), 410; A. ŠONJE, "Arheološka," 255, 260, 273. On the other hand, the Austrians Frey and Gnirs, whose accounts disagree on a number of things, reported that the pavements stood at the exact same level; see D. FREY, "Neue Untersuchungen und Grabungen in Parenzo," *Mitteilungen der k.k. Zentralkommission für Denkmalpflege* VIII (1914), 185, 187; and A. GNIRS, "Zur Frage der christlichen Kultanlagen aus der ersten Hälfte des vierten Jahrhunderts im Österreichischen Küstenlande" *Jahresheft des Österreichischen Archäologischen Instituts*, XIX-XX (1919), 172. Periodic restoration of the pavements could not be solely responsible for that variation. Thus, it is no surprise that an Italian report of 1921 recorded a variation of 18 cm, even in the parts of M27-32 found under the north aisle, an area relatively distant from the shore; n.a., "Restauri. Parenzo" *Bollettino d'arte del ministero della pubblica istruzione*, ser. 2, 1 (1921-22), 140.

<sup>6</sup>I am grateful to I. Matejčić for providing me with the latest elevation data compiled under his direction for the ZZZSK in Rijeka.

<sup>7</sup>C. DE FRANCESCHI, "La cattedrale di Parenzo e i suoi restauri nei secoli XVII e XVIII" *Atti e memorie della società istriana di archeologia e storia patria*, XLV (1933), 368, 371.

<sup>8</sup>"Parenzo" *Bollettino d'arte del ministero della pubblica istruzione*, Ser. 2, 3 (1923-24), 525: a poltiglia fangosa

<sup>9</sup>"Arheološka istraživanja," 251, n. 18.

<sup>10</sup>While the pavements under the basilica and other structures do not routinely flood, they are threatened, since they have been exposed to long-term dampness and are currently covered with mold. For an account of how conservation of pavements at the site at Aquileia, with comparable but not identical conditions, have been handled, see the very interesting article by L. BERTACCHI, "I mosaici di Aquileia" *Mosaics 3. Conservation in Aquileia*, 1983 (Rome, 1985), 1-17.

<sup>11</sup>Most material relative to Austrian work at the site comes from a series of documents found in 1991 at the *Allgemeines Verwaltungsarchiv*, part of the *Österreichisches Staatsarchiv* in Vienna. They record deliberations and communications of the *k.k. Central-Commission zur Erforschung und Erhaltung der Kunst- und historischen Denkmale* (Central Commission for the Study and Preservation of Art and Historical Monuments), hereafter CCD, an agency which advised the *Ministerium für Cultus und Unterricht* (Ministry for Church Affairs and Education), hereafter MCU, who had ultimate authority over the Eufrasiana. The documents span the period from 1862-1917, and detail many aspects of work at the cathedral. The documents have been painstakingly transcribed from the *Kurrent* script by T. MUHLSTEIN, who is also collaborating with the author on related publications. These documents, while voluminous, are by no means complete; searches for further material are currently in progress. To avoid encumbering the endnotes, references to documents are placed in parentheses in the text itself. The notations used to identify the documents was chosen for purposes of indexing them in a computerized data base, but reflects the numbers used in the documents themselves. For example "1862-D#0093" would refer to CCD number Z.93/c.c. ex 1862

<sup>12</sup>See TERRY, *Architecture*, 21; this material is being further developed in the study in progress by Terry and Gilmore Eaves. The Austrian documents also recorded the even earlier and deeper mosaics located to the north of the basilica, also found by Peteani, during the construction of the former chapel of S. Maurus (1881-D#9110), demolished in 1928-29.

<sup>13</sup>About De Franceschi's drawing, see B. MOLAJOLI, *La basilica*, fig. 77, p. 54. Additional evidence is preserved at the Millet collection at the Sorbonne in Paris. The materials of Professor Gabriel Millet, who excavated at Poreč in 1901, are preserved in an archive at the *Centre d'Études Gabriel Millet - Photothèque (École Pratique des hautes études- Sciences Religieuses)* at the Sorbonne in Paris. Included are copies of finely detailed drawings of several of the Eufrasian panels. These are not identified, but they appear to be related to De Franceschi's drawing. Certainly by 1901, these Eufrasian panels had disappeared. For information about this archive, and assistance in making inquiries, I am grateful to Nora Laos and Slobodan Čurčić of Princeton University. I am also deeply indebted to Dominique Couson-Desreumaux, curator of the collection, who has given most generously of her time and expertise.

<sup>14</sup>ERRARD AND GAYET, *L'art byzantin, d'après les monuments de l'Istria et de la Dalmatie*, II (Paris, 1901-03), especially plates 28-31.

<sup>15</sup>DEPERIS, "Parenzo" 405; Amoroso, "Le basiliche cristiane di Parenzo" *Atti e memorie della società istriana di archeologia e storia patria*, VI (1890), 495.

<sup>16</sup>G. CUSCITO, "Il contributo della società istriana di archeologia e storia Patria agli studi sulla tarda antichità," *Atti e memorie della società istriana di archeologia e storia patria*, n.s. 32 (1984), 97-144.

<sup>17</sup>For M47, see MOLAJOLI, *La basilica*, 54, fig. 78. Several additional tracts of Eufrasian pavement, conserved *in situ* under the Italians, survive in the *cella trichora* (M41-44; Fig. 5); see MOLAJOLI, *La basilica*, 60.

<sup>18</sup>ŠONJE, "Neki noviji nalazi na području Eufrazijeve bazilike u Poreču," *Jadranski zbornik*, 12 (1982-85), 340-41.

<sup>19</sup>A preliminary study of the documentary evidence for the restoration of the wall mosaics by Terry and Muhlstein is in progress for the proceedings of the XII *Congressus Internationalis Archaeologiae Christianae*, Split-Poreč, September 25-October 1, 1994.

<sup>20</sup>See, for example, "Aus einem Berichte des Professor Dr. W. Neumann an die k.k. Central-Commission ddo 7. October 1897," *Mitteilungen der k. k. Zentral-Kommission für Erforschung und Erhaltung der Kunst- und historischen Denkmale*, Neue Folge, XXIV (1898), 161.

- <sup>21</sup> The faded ink is on now-extremely brittle tracing paper for which reason a publishable photograph was impossible to obtain. Fig. 8 derives from several photocopies, cut, pasted and annotated.
- <sup>22</sup> M23a-b is not shown on Fig. 8, but we know from Deperis' report that they had been excavated; "Parenzo", 434-35.
- <sup>23</sup> Most important to this period are the following: n.a., "Restauri. Parenzo", 139-40; TAMARO, "Parenzo-Mosaici presso la basilica eufrasiana", *Notizie degli scavi di antichità*, 4 (1928), 411-12; LANZONI, "Restauri", 525-26; and F. FORLATI, "Gli ultimi restauri nella basilica Eufrasiana di Parenzo", *Atti e memorie della società istriana di archeologia e storia patria*, XLII (1930), 433-46. Other material is found in unpublished collections: Many plans, drawings and photographs are preserved in Trieste, at the *Soprintendenza-Trieste*; additional clues are provided by a list of records (plans, drawings, photographs, reports, and other archival materials) compiled by Iva Perčić in 1965 at Trieste (hereafter "Perčić: Trieste List"), and preserved today at the ZZZSK. The Perčić List has helped to fill minor gaps in all phases of Italian work. It should be cautioned that this list is not inclusive (most of the records I have seen in periodic visits to *Soprintendenza-Trieste* are not on this list), and that a number of the items listed have no date. Officials at *Soprintendenza-Trieste* have been unable to locate most of the items on the list.
- <sup>24</sup> n.a., "Restauri. Parenzo", 139-40.
- <sup>25</sup> F. FORLATI, "Gli ultimi", 438, n. 1. These remain in use today.
- <sup>26</sup> "Notiziario archeologico (1931)", *Atti e memorie della società istriana di archeologia e storia patria*, 43 (1931), 380-81.
- <sup>27</sup> The most detailed account is LANZONI, "Parenzo", 525-26. The costs of the project were shared, half supplied by the *Giunta provinciale per l'Istria*, the *Comune di Parenzo*, and the *Curia vescovile*, and the other half by the *Ufficio Belle Arti per la Venezia Giulia* (the predecessor of the *Soprintendenza-Trieste*).
- <sup>28</sup> "Parenzo", 525.
- <sup>29</sup> GILMORE EAVES, *Annulling a Myth*, 82-83.
- <sup>30</sup> The published accounts do not give the year, but it seems clear from dated photographs that it took place in 1924. All of the archival photographs from the *Soprintendenza-Trieste* bear that date (for example. nos. 673, 984, 1742), with the exception of one (no. 1748) dated to 1923. Photographs listed on the PERČIĆ: *Trieste List* are dated to 1924 (nos. 669, 985, 570, and 638).
- <sup>31</sup> "Parenzo", 411. One wonders if photograph no. 1324 from 1927 on the Perčić: Trieste List, described as the removal of M36, is wrongly dated.
- <sup>32</sup> V. JENKO, "Kompleks Eufrazijeve bazilike u Poreču i njegov konzervatorski problem", *Riječka revija*, 1-2 (1956), 61, specified that the Italians raised, and set on a new cement base only M35 and M36; however, we know from *Soprintendenza-Trieste* photograph 984 that a stretch of the eastern part of M36 was covered by S. Mauro and inaccessible to them, and, at the same time, that the northern edge of M37, which lay outside the north wall of S. Mauro, was included in the project.
- <sup>33</sup> Noted on the PERČIĆ: *Trieste List*, as part of the chronology.
- <sup>34</sup> PERČIĆ: *Trieste List*, photograph 4285 illustrated the removal of "field I" (*polje I*, I suspect M35), while an item on the chronology noted its restoration.
- <sup>35</sup> "Le costruzione preeufrasiane di Parenzo", *Le Arti*, II (1939-40), 96, n. 14. Molajoli's date of 1921 was an error for 1924.
- <sup>36</sup> MOLAJOLI, *La basilica*, 11-12, figs. 4-5. For M39-40, see n. 48 below.
- <sup>37</sup> PERČIĆ, "Zaštita spomenika kulture u Istri nakon oslobođenja", *Vijesti muzealaca i konzervatora Hrvatske*, XVII/4-5 (1968), 33, reported that immediately after the liberation of Istria in 1945, the "Konzervatorski zavod" in Zagreb engaged a number of specialists to record and assess cultural monuments in Istria. In 1946, a separate institute was formed, the *Zavod za područje Istre, Rijeke, Hrvatskog primorja, Gorskog kotora i Kvarnerskih otoka*, with its headquarters in Rijeka. the *Konzervatorski zavod za Istru i Hrvatsko primorje* (formed in 1952; the immediate predecessor to the *Regionalni zavod za zaštitu spomenika kulture*-hereafter RZZZSK), now (since 1994) simply the *Zavod za zaštitu spomenika kulture* (ZZZSK), must have been an offshoot of that original organization; see also Prelog, *Poreč: grad i spomenici* (Belgrade, 1957), "Predgovor."
- <sup>38</sup> CUSCITO and GALLI, *Parenzo*, 245-66.
- <sup>39</sup> The other was the structural stability of the basilica; see JENKO, "Kompleks", 61; PERČIĆ, "Denkmalpflege in Poreč", *Österreichische Zeitschrift für Kunst und Denkmalpflege*, 1-2 (1958), 6, and "Zaštita", 38.
- <sup>40</sup> JENKO, "Kompleks", 61, gave a date of 1953, while ŠONJE, "Arheološka", 251, n. 18, gave 1954; by all accounts, work was in full swing by 1954.
- <sup>41</sup> JENKO, "Kompleks", 61; PERČIĆ, "Denkmalpflege", 6; and ŠONJE, "Arheološka", 251.
- <sup>42</sup> *Ibid.* 251, n. 18. This measure must have been undertaken before M35 was removed.
- <sup>43</sup> See the following entries on PERČIĆ: *List from Trieste*: 1954 -geological perspective; 1958 and 1959-geological feasibility studies; 1959-61 -geological and hydrogeological conditions studied; 1961 -report entitled *Geološke i hidrogeološke prilike uže i šire okoline oratorija sv. Maura kod Eufrazijane u Poreču*, by the *Institut građevinarstva Hrvatske*
- <sup>44</sup> "Denkmalpflege", 6; a "komisija" is noted for the first time on the Perčić List in 1959, and meetings were registered in 1961 and 1960. In 1968, Perčić noted that much of the work had been accomplished, thus the commission met less often; see, "Zaštita", 38.
- <sup>45</sup> On the PERČIĆ: *Trieste List*, entries registering work on the mosaics, appear in 1959, 1961-63 and 1967, when they are listed for the last time; ŠONJE, "Arheološka", 262, reported 1963-67 for the extraction, drainage and construction of concrete slabs. Further, entries from 1965, 1966 and 1967 from the PERČIĆ: *Trieste List* refer to arrangements to store mosaics at the episcopal palace, or to a repository for mosaics; Perčić's published report of 1968 described the work in the future tense; work on the mosaics was still in process when Šonje published "Arheološka," in 1969. That the PERČIĆ: *Trieste List* fails to record mosaic work after 1967 might reflect either an arbitrarily compiled list or a division of work between federal and republic authorities, or both.
- <sup>46</sup> Šonje published a disturbing note with respect to the floor mosaics in 1972, after the project was brought to a close; see "Novi arheološki nalazi na području Maurova oratorija građevinskog ansambla Eufrazijane u Poreču", *Jadranski zbornik*, VIII (1972), 344. He wrote that the copies installed in the middle hall of the First Basilica (M35-37) had been set, erroneously, at a level 20 cm higher their original elevation. The figure was based on a tract of mosaics found *in situ* at the east end of that area. He proposed that a project be launched to gather all the relevant data and reset the mosaics. Unfortunately, the location of the tract of mosaics *in situ* was not specified.
- <sup>47</sup> Some few tracts are preserved elsewhere, for example the very important section of M37 with the famous fish is now in the chapel of the Virgin, to the south of the basilica.
- <sup>48</sup> For M38a, see ŠONJE, "Le costruzioni preeufrasiane di Parenzo" *Zbornik Poreštine*, 1 (1971), 278; "Nalazi podnih mozaika", *Materijali*, XVIII (1978), 145, sl. 9; "Arheološka", 259. For M38a, see ŠONJE, "Arheološka", 255, 259-260, 265, 273. For M39-40, see ŠONJE, "Le costruzioni", 278-79; and "Krstionice građevnog ansambla Eufrazijeve bazilike u Poreču", *Arheološki Vestnik*, XXIII (1972), 305-06. See also the discussion of M38-40 in GILMORE EAVES, *Annulling a Myth*, 196-210.
- <sup>49</sup> M33-34 stand as an exception. One can see undisturbed stratified terrain between their surface and some later walls above. Also tiny bits of M29 are preserved *in situ* in later cistern walls.

Katedralni kompleks Eufrazijeve bazilike u Poreču bogat je podnim mozaicima iz nekoliko sukcesivnih faza ranokršćanskog razdoblja. Oni su važni za proučavanje podnih mozaika na sjevernom Jadranu i kao arheološko svjedočanstvo Katedralnog kompleksa u Poreču. Mozaici su bili restaurirani, no uz mnogobrojne promjene vlasti u Istri za vrijeme posljednjeg stoljeća (austrijska do 1918., talijanska do 1945. i jugoslavenska do 1991.) slaba je bila kontinualnost projekata, a veći je dio dokumentacije izgubljen. Koristeći i neobjavljenu i objavljenu dokumentaciju, ovaj tekst rekonstruira povijest konzervacije ovih mozaika od 1862. do 1991. godine u svrhu sastavljanja novog dossiera i određivanja njihove vrijednosti kao arheološkog nasljeđa. Nalazište samo po sebi, zbog konfiguracije tla, donosi niz problema koji su rezultat poplavlivanja što je rezultiralo nasilnim restauracijskim rješenjima. Razlikujemo tri glavna razdoblja konzervacije. Prvi projekt (austrijski) uključivao je iskopavanje, čišćenje i konzervaciju *in situ* dijelova ispod postojeće bazilike, atrija i sakristije i na sjevernom nalazu (vjerojatno M7, M11-15, M30-31, M58a-b, M23a-b). M30-31 datiraju se u vrijeme prve bazilike, dok se ostali pridružuju predeufrazijevoj bazilici. Austrijanci su bili prvi koji su predložili da se mozaici sjevernog položaja odstrane kako bi se očistili, ali to rješenje nisu nikada proveli. Za vrijeme talijanskog raz-

doblja, mozaici sjevernog lokaliteta su uklonjeni i potom presloženi u novo betonsko ležište (M35, M36, dio M37, svi iz vremena prve bazilike). M35-36 su preseljeni i presloženi dva puta. Ovaj postupak u većini slučajeva, raskinuo je vezu između mozaika i postojećih zidova (podloge). Mozaici ispod postojeće građevine su restaurirani, ali manje nasilno (M24-26, M39-40 iz prve bazilike; M33-34 nesigurne datacije; M21, M1-20 iz predeufrazijeve bazilike). Dijelovi predeufrazijeve gradnje ispod sjevernog broda bazilike su premješteni na ciglenu podlogu koja je najvjerojatnije zamijenila originalnu (M14-19). Za vrijeme bivše Jugoslavije spoznalo se da su mozaici sjevernog nalazišta također ugroženi zato jer nova betonska podloga nije dopuštala drenažu. Kako hidrogeološka proučavanja nisu mogla riješiti problem, vlasti su odlučile preseliti mozaike sjevernog nalazišta (M21, neke od M30, M35-37), zamijeniti ih kopijama i spremati originale dok se na pronade konačno rješenje. Ovaj projekt, popraćen vrlo širokim iskopavanjima, još je više umanjio arheološku vrijednost mozaika sjevernog nalazišta. Naposljetku, različite površine mozaika u Poreču bile su različito konzervirane i različitim stupnjevima nasilnosti tretirane. Mozaici ispod postojećih gradnji uglavnom su restaurirani *in situ*. Ali projekti sjeverne crkve bili su radikalno nasilni, prvo preseljivanjem i preslagivanjem mozaika i potom zamjenom kopija. Time je njihova arheološka vrijednost ograničena.