

**THE STRATIGRAPHY AT THE SITE OF PSALMODI
DEPARTMENT OF GARD, FRANCE
FINAL REPORT**

**BY
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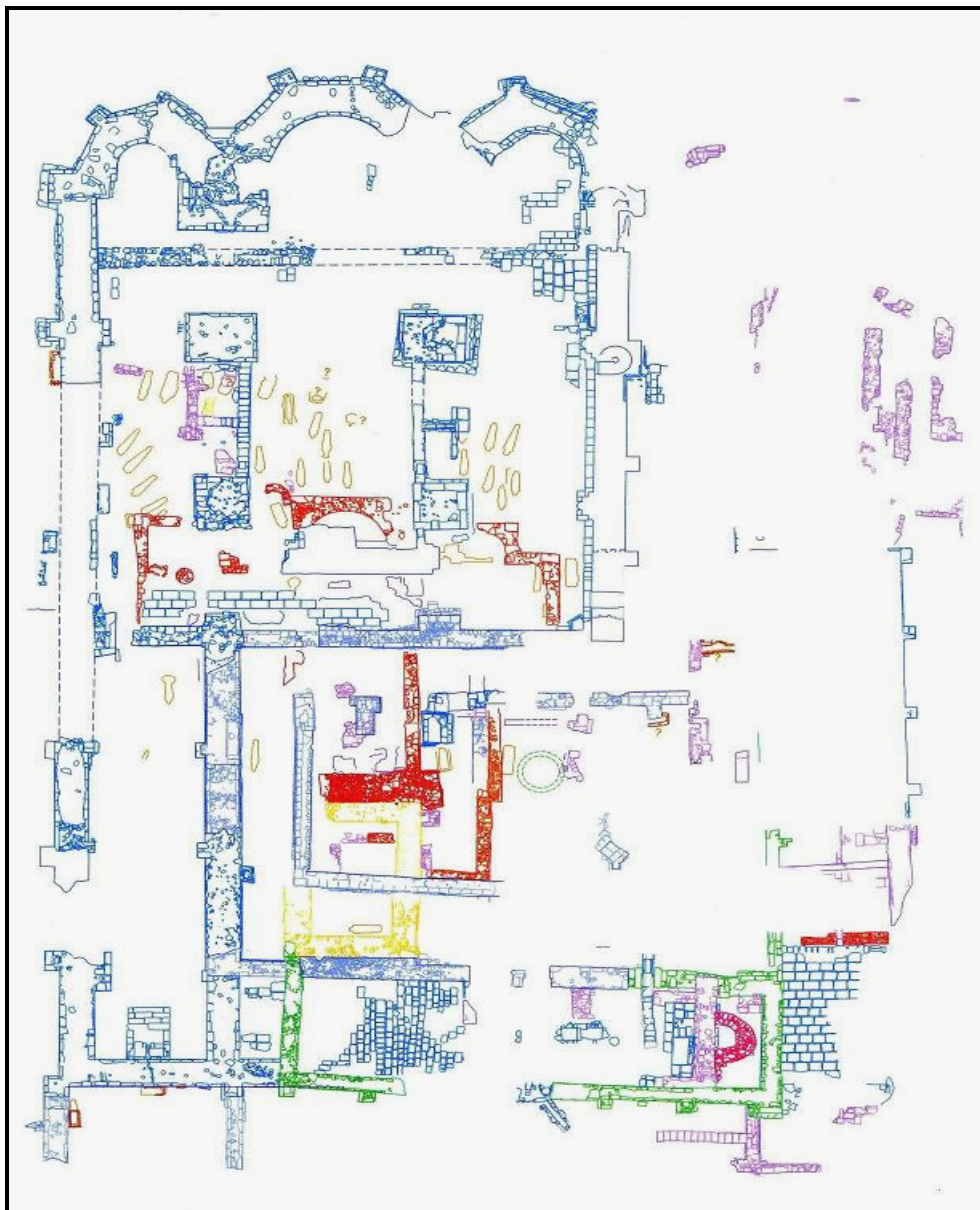


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RÉSUMÉ EXÉCUTIF

Ce rapport récapitule les découvertes de l'enregistrement et de l'analyse de données stratigraphiques qui a été conduite de 2002 à 2009 et aussi les recherches des archives du site de Psalmodi, dans le Gard, en France. Pendant sept saisons de recherches stratigraphiques, nous avons analysé 35 coupes et conduit des analyses spatiales profondes de trois grands secteurs du site. Nous avons aussi revu les cahiers et les dessins des fouilles de 1978 à 1989. Le travail était de rassembler des données stratigraphiques en vue de développer une compréhension plus complète des relations temporelles et fonctionnelles sur le site. Nous n'avons pas entrepris de nouvelles fouilles ; nous avons tout simplement nettoyé et enregistré les coupes stratigraphiques exposées.

L'analyse a suivi les principes stratigraphiques de superposition et d'entrecoupant. Pour identifier les phases de la construction, nous nous sommes intéressés particulièrement aux sols d'habitat et aux niveaux de mortier qui étaient au-dessous des dallages. D'autres niveaux archéologiques que nous avons identifiés pendant les recherches, incluent le substrat de poudingue, la surface originale du sol, les remblais, les tranchées des fondations, et les couches dues à l'abandon et la destruction du monastère. Nous avons tiré des conclusions provisoires qui ont des implications importantes pour l'interprétation et le séquençement du site. La séquence stratigraphique fournit une datation relative et non pas absolue. Dans certains cas, mais pas la totalité, nous avons pu établir une date absolue pour un contexte. Ces dates sont basées sur le *terminus post quem* des poteries recouvertes.

Il y a trois thèmes spatiaux et chronologiques qui émergent de l'analyse :

- ✖ Les bâtiments ont augmenté en ampleur et en densité entre l'époque des fondations du monastère et le quatorzième siècle. La première église était relativement petite avec un grand cimetière à l'est. La seconde église fut certainement destinée à être plus grande, et même l'église tronquée avait une empreinte au sol plus grande que celle de l'église primitive. En effet, l'environnement bâti est devenu monumental, et la zone sacrée est devenu quasi urbaine.
- ✖ Cette densité de construction s'est effectuée par le remplissage des espaces ouverts, d'abord vers l'est, puis vers l'ouest de la paroi de fermeture, et enfin, vers le sud. À la fin du quatorzième siècle, tout l'espace était bâti.
- ✖ La réutilisation adaptative était courante à la période médiévale et le reste aujourd'hui. Elle était parfois opportune, une stratégie économique – le recyclage des anciennes pierres pour un nouveau mur. Mais il pourrait aussi être symbolique – par exemple, la conservation de la nef ancienne jointe à l'église gothique. Cela peut être considéré comme une affirmation visuelle de l'héritage de l'abbaye pendant une période où l'indépendance du monastère était contestée.

Dans cette grande ligne, la séquence stratigraphique est en accord avec celle développée par les analyses des historiens de l'art et de l'architecture. Cependant, notre analyse a fourni des clarifications et des détails qui complètent les recherches précédentes. Elles sont énumérées par phases et par secteurs.

✖ **L'occupation de l'antiquité tardive** : Cette période était très compliquée et comporte plusieurs volets archéologiques. En analysant, nous avons trouvé au moins un bâtiment, trois sols d'habitat, trois groupes stylistiques de tombes et beaucoup de fosses remplies de poteries importées. La position stratigraphique des tombes de tuiles indiquent qu'elles sont antérieures à l'église primitive et à l'édifice antérieur. L'évidence de la présence de cimetières indique que c'était déjà un lieu sacré avant la fondation du monastère. L'abondance de poteries importées suggère que c'était aussi un entrepôt pour le commerce méditerranéen.

✖ **La première église** : Il est important de préciser que nous n'avons pas de date absolument précise pour le début de la construction de cette église. Les trois sols ont confirmé qu'il y avait eu trois, et non pas deux, phases de construction. Le niveau de cendres sur le premier sol a fourni la preuve qu'un incendie avait détruit l'église et les bâtiments à l'ouest et au sud. L'église a été reconstruite, peut-être au dixième siècle. Les deux surfaces de construction et les ruptures dans la maçonnerie des murs du transept

sud en prouvent la restauration. Les secteurs au sud et à l'ouest ont été provisoirement abandonnés après l'incendie. Les recherches ont montré aussi que l'église avait une nef, trois absides, deux grands transepts, et peut-être un narthex, mais pas d'allées latérales.

✖ **La seconde église et le cloître :** Cette église a été probablement commencée au XII^{ème} siècle. Il y a eu deux phases de construction – la première partie de l'église est composée de trois grandes absides, deux chœurs, et une allée au nord. Parce qu'il avait une inclinaison du terrain vers l'est, il fut nécessaire de le niveler avant la construction. Pour cela, on a utilisé des remblais sauvés de la démolition des absides et des transepts de la première église. La nef de cette première église a été jointe à la nouvelle église. Il semble que l'église avait été conçue pour être une basilique de style gothique avec trois absides et deux allées latérales, mais la construction d'un mur de clôture l'a tronquée de moitié. Selon la stratigraphie, cela a eu lieu au cours de la deuxième phase de construction (vers l'an 1300). Le mur nord a été bâti en deux où trois fois. La construction du mur de clôture a séparé la partie nord de la partie sud, formant un édifice séparé au coin du nord-ouest de l'église gothique. C'est pendant cette période que l'ancienne nef a été démolie. La zone à l'ouest de l'église a été redessinée, d'abord avec une place ouverte et plus tard avec un grand cloître.

✖ **Le secteur ouest :** Ce n'était pas un réfectoire comme on le pensait auparavant, mais plutôt deux immeubles ayant chacun une histoire stratigraphique particulière. Le bâtiment nord avait été construit au cours de la même période que la première église, et il a brûlé dans l'incendie qui a détruit cette église. Le secteur a été abandonné jusqu'à la période de la construction de la seconde église, notamment avec l'ajout d'un nouveau bâtiment au sud. Ce nouveau bâtiment abritait un coin-cuisine et un système élaboré de circulation de l'eau.

✖ **La période de l'abandon et la destruction :** L'enregistrement stratigraphique indique que les bâtiments du monastère ont été abandonnés et sont tombés en ruines avant le dix-septième siècle.

ACKNOWLEDGEMENTS

Archaeological research is a team effort, and it is important that we acknowledge some of the major players at Psalmodi. First and foremost, our project director, Brooks Stoddard, and the associate director of archaeology, David Yoon, deserve special thanks for all their help – their detailed knowledge of site history, their guidance, and their good company in the field. Brooks’ sagas of the excavations are an integral piece of Psalmodi folklore and he was an excellent host during the months that we stayed at his home in Solorgues. David’s archaeological acumen and his extraordinary culinary skills kept both mind and body together. In addition to her role as faunal analyst, Kirsten Köhler used her exceptional organizational skills to keep us all on task. Her barbeques are legendary and she remains a good friend. Mary Burr’s two years on the site were highlighted by her thorough wall studies and her unfailing good humor. Sian Anthony shared her analyses of the burials and human remains, while Susan Stoddard illuminated the art and sculpture. Liz Riorden’s and Jeff Tilman’s architectural reconstructions and insights helped us visualize the abbey at Psalmodi. Bailey Young clarified a number of the profiles he had compiled during his years on the site. Our thanks go to the several Williams College students for their help in the various and sometimes boring tasks of fieldwork. Dublin fondly remembers the late Michael Baumann, our predecessor in stratigraphic recording, a fine archaeological draftsman, and (very importantly) a daring wasp-killer. Tammy Stone was (as always) an excellent consultant on matters theoretical and editorial. Finally, we extend our sincere thanks to Christophe Pellecuer of the Centre Nationale de la Recherche Scientifique who oversaw the work at Psalmodi and who was so patient with our slow progress. Apologies for our fractured French.

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Finally, we must admit, much as we hate to, that any errors or misconceptions are our responsibility.

1. INTRODUCTION

The archaeological site at Psalmodi in Gard, southern France, was excavated between the years 1970 and 1989 (Dodds 1982; Stoddard 1978; 1979; 1980; 1981; 1983; Stoddard et al. 1988; 1989). The excavations, directed by art historians Whitney S. and Brooks W. Stoddard, were directed toward developing a more complete understanding of the Romanesque to Gothic transition in southern French ecclesiastical architecture. The open area excavations revealed the foundations of a large twelfth-century church that was partially superimposed on an earlier church. Excavators also uncovered the remnants of a long, narrow structure west of the two churches, and a fourteenth-century cloister, as well as scattered earlier remains. In 1995, work recommenced, with an emphasis on the collections, the stratigraphy of the early church (Trimble 1995; Yoon et al. 2001), and the compilation of a detailed site map (Baumann 2002; Riorden and Tilman 2011). We began our systematic documentation of the remaining standing baulks in 2002 and continued through seven field seasons (Dublin 2002; 2003; 2004; Dublin and Yoon 2005; Dublin and Zaneri 2008; 2009) and a final season of archival research (2011). This report presents the results of that research.

We recorded 35 profiles and plan views and conducted in-depth spatial analyses of trenches 6 and 102 and trenches in the west range. The archival research entailed review and re-analysis of available profiles and plans from the excavations. Only those drawings that are essential to the text are reproduced in this report; others are referenced to the annual reports or field notes. Figure 1 shows the locations of the drawings discussed in the report.

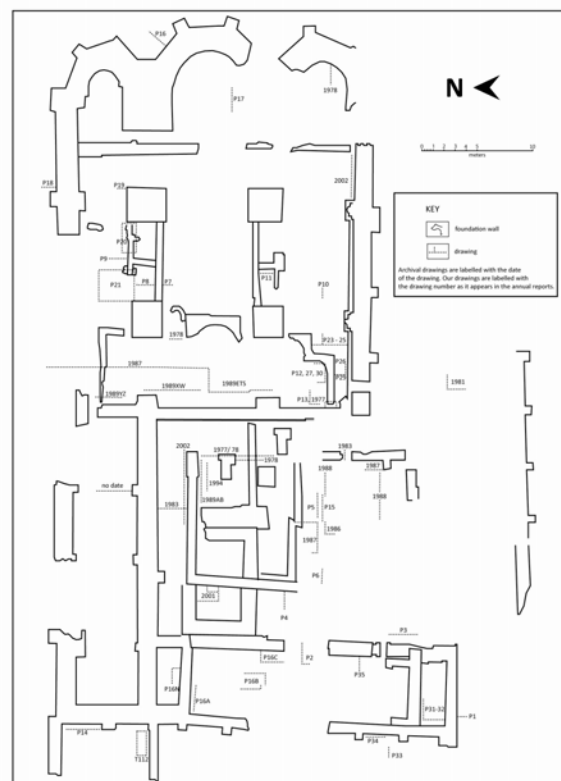


Figure 1.1 Locations of profiles and plans used in the stratigraphic analysis

After a brief description of the methods used in our research, the report is organized chronologically. Chapter 3 outlines the geological history and a description of the substrate and earliest surface deposits. Chapter 4 describes the stratigraphy and features associated with the pre-monastic occupation, primarily the Late Ancient. The deposits associated with the Early Church are discussed in chapter 5, and those associated

with the Late Church are in chapter 6. Chapter 7 deals with the stratigraphy of the Late Cloister. The west range, the northwest, and the abandonment/ destruction period are treated in separate sections, chapters 8, 9, and 10 respectively. A brief outline of the stratigraphic sequence, a discussion of the findings, and some suggestions for future research can be found in chapter 11.

The primary unit of analysis is the sacred precinct; secondary analytical units are defined by individual structures. The analysis considers a number of variables – most importantly superposition, inter-cutting, and the identification of living floors. We aimed to produce an outline of changes in the built landscape over time. In the interests of (a semblance of) brevity, much detail has been condensed, and drawings of adjacent or neighboring baulks have been combined to provide an overview of larger areas. The reader is referred to the annual reports for details.

2. METHODS

The focus of our work was to record standing baulks. We did not excavate, but merely cleaned accumulated debris off the surface of the baulks so that the original strata were visible. The documentation process was described in our initial report (Dublin 2002:1-3) and is merely summarized here. After exposing the original strata, we recorded the individual contexts and screened five-liter soil samples from each identified context. The criteria for selection of a particular baulk included an assessment of the integrity of the deposits and their potential for providing information on poorly understood areas of the site. During the later years of the project (2006, 2008, and 2009), we examined larger sections of the site in an effort to improve our understanding of the pre-monastic levels, the south transept of the Early Church, and the west range.

There were two notable exceptions to this protocol, where the opportunity for stratigraphic recording was the result of external circumstances. In 2004, with the permission of the *Direction Régionale des Affaires Culturelles du Languedoc-Roussillon* (DRAC), we excavated several endangered burials located along the western exterior of the north building (trench 41). The burials, which were disarticulated for the most part, are not discussed in depth in this report, but can be reviewed in Dublin and Yoon 2004. In 2005, we recorded the stratigraphy of a hand-dug septic trench in the backyard of the farmhouse (Dublin 2005:1-4). This was a unique opportunity to work in this poorly understood area, which had been backfilled and was in use by residents.

The site datum was located on the surface of the wall that formed the center apse of the Late Church. All elevations on our field drawings were shot in to this point and are stated in centimeters (cm.) above site datum. Elevations for previous drawings were, as noted above, calibrated to this point. Sector plan views used in this report were based on the site map compiled by Riorden and Tilman (2011).

Archival research: The archival research expanded the stratigraphic sample to include records from the excavations. The work began with a systematic review of existing field notebooks, drawings, and interim reports. Dublin focused on the drawings, Zaneri on the field notes. Archival material that could be identified by precise location, elevation, and the quality of stratigraphic data was tagged for closer study. Not all the archival information was suitable for inclusion in our research, which emphasized comparability across the various site sectors. Unlabeled or otherwise unidentified material was immediately discarded. The remaining documentation was located horizontally and vertically within the context of the site map and our drawings, where possible. A number of drawings did not include scale, direction, or elevation, and it was necessary to reconstruct these measurements in order to provide comparability. Where we were unable to do this, we did not include the incomplete information, which further narrowed our field of inquiry.

From the final group, we reconstructed locations, scales, elevations, and orientations by reference to notations on the drawings themselves, to field notes that provided supporting information, or to recorded known features. Some, but not all of the archived drawings were on graph paper which facilitated scaling. Where this was not the case, we reconstructed the scale of a drawing by comparing known feature dimensions to dimensions on the drawing. Elevations were reconstructed by reference to a recorded “measuring point” that could be tied to the site datum or by using recorded elevations of known features to set a benchmark for additional elevations. Although the results of such reconstructions cannot be expected to be exact, subsequent analysis showed a remarkable congruence between shot-in and reconstructed elevations.

Depositional characteristics were not usually described in terms that were directly comparable to our standard of description. In many cases, however, we were able to identify similar matrices by contiguity,

elevation, soil characteristics and inclusions, and morphology. Broad functional/ depositional units are listed in Table 1, along with generic descriptions of the matrices.

Table 2.1 Major Depositional Units Recorded at Psalmodi 2002 – 2009.

<i>Unit</i>	<i>General description</i>
substrate (<i>poudingue</i>)	limestone conglomerate, yellowish-brown in color with gravel inclusions
pre-construction surfaces	hard-packed, level deposits of dark brown silt or orange-brown clayey silt
pit features	semi-oval in shape; generally loose soils readily distinguishable from surfaces
burials	stone or tile coffin, human remains
fill	mixed sands and crumbled mortar with a high density of rubble
builder's trenches	loosely-packed mixed silts and sands alongside walls
built features	walls, pavements, sub-pavement mortar surfaces
abandonment/ destruction related	building rubble, stone robbers' trenches, stockpiled construction material

Chronology: Site sequences outlined here generally use relative rather than absolute dates. Although we collected samples for radiocarbon analysis, there was no funding for analysis. *Termini post quem* on ceramics recovered from the screened samples (2002 – 2008) were compiled by David Yoon. These are noted in the text. Unfortunately, sherd counts from the five-liter soil samples tended to be small, and dating is poor, especially for the critical years between 800 and 1250 C.E.

Post-depositional processes: A number of factors need to be considered in the analysis of the depositional history. The excavations were centered on the sacred precinct – i.e., the abbatial churches and cloister(s); therefore, the actual extent of the monastic occupation is not known. According to an important historic account (Bondurand 1883), the fifteenth-century monastery extended under the current farm buildings and north and east into what are now wheat and rice fields.

Over time, there have been significant natural and anthropogenic disturbances. The site is low-lying, approximately 2.5 meters above sea level. Sections at the west end of the excavation area were apparently inundated at times, as indicated by the presence of clays derived from decomposing substrate, and water-deposited silts. The site was not back-filled, so there has been significant erosion to exposed deposits. Bioturbation, notably root action that penetrated archaeological deposits, also played a role, as did numerous insect infestations. The construction record is quite complex, comprising at least six major building events, each of which acted to destroy or reorder previously existing features and surfaces. Abandonment processes, especially stone robbing and the stockpiling of usable construction material, have also impacted the site, displacing and removing cultural and architectural material. Plowing, filling, the excavation of trenches to house utilities, and the construction of two farmhouses and a number of greenhouses cut into archaeological deposits. Finally, the process of archaeological excavation itself, no matter how well documented, presents yet another source of post-depositional disturbance, as strata and often features are removed. Specific post-depositional disturbances that have created major impacts will be mentioned in the various chapters.

3. SUBSTRATE AND PRE-MONASTIC LEVELS

Landscape studies can be addressed on two levels – the larger or regional landscape, and the setting of the specific site. Our focus is on the site level, but a summary of the larger regional landscape is useful in establishing perspective. This summary is drawn from geological and historical research (Bondurand 1883; Durand 1988, 2003; Favory and Raynaud 1992; Py and Roure 2002; Raynaud 2012, n.d.; Rey 2007, n.d.; Rey et al. 2009; Rivals 1937).

The landscape of the *Petite Camargue* was shaped and profoundly altered by water. The original site of Psalmodi is described as an *îlot* in a huge *étang* that stretched from the *Étang de l'Or* in the west to the *Étang de Scamandre* in the east and separated the coastal dunes from the *Costières* terraces (Favory and Raynaud 1992:12ff.; Py and Roure 2002; Rey 2007:17, n.d.). Over the past two millennia, the lagoon silted in, related in part to delta formation along the valleys of the Vidourle and Vistre Rivers. The land is now dry grassland and marsh that supports pasturage and rice cultivation.



Figure 3.1 Psalmodi in the eighteenth century (Baronnie de Caila map 1726).

The details and timing of the formation of the historical landscape are not clear. Was the “*îlot*” surrounded by open water, or was it merely a hummock in the midst of the marshes? In addition to delta formation, a probable contributor to the silting-in of the lagoon was the closing of the *crevasse des tourradons* in or about the ninth century (Rey et al. 2009:20-21). The crevasse provided a water source, and its silting-in would have resulted in a certain amount of shrinkage in the lagoon. There is no question, however, that silting was exacerbated by anthropogenic processes, as the land became more developed during the monastic period. These processes included agricultural intensification and deforestation (Durand 1988; 2003; Rey et al. 2009:292), as well as the canalization of the Vidourle in the fourteenth century (Raynaud 2012:8) and the Vistre in the nineteenth century (Py and Roure 2002). In any case, the *étang* had clearly silted in by the eighteenth century. The *Carte de la baronnie du caila* De Rocheblave 1726; figure 3.1) depicts the surrounding area as marshland (*palus*). A 1409 cartulary (Bondurand 1883; Rivals 1937) mentions a causeway and bridge at the south end of the islet, but these could have

spanned marsh rather than open water. Sixteenth century accounts attribute the abandonment of monastery in part to the unhealthy atmosphere created by the surrounding marsh. It is likely that the degradation of the *étang* was a gradual process that was almost, if not totally, complete by the end of the Medieval Period.

Psalmodi is situated at the intersection of three topographic zones (figure 3.2). To the north, the pre-Holocene uplands of the *Costières* terraces range in elevation from about 10 meters above sea level to about 105 meters. On the south, the littoral was characterized by shifting dunes and coastal progradation that built the coastline outward (Rey 2007; Rey et al. 2009). Between these two zones lie the marshland and delta zones of the Vidourle and Vistre (<4 meters above sea level). The monastery was perched on an outcrop of the *Costières* formation. The substrate, typical of the *Costières* formation, consists of pre-Holocene rhodanien siliceous gravels cemented by limestone precipitates into a hardened crust (Py and Roure 2002). This base level was overlain by alluvial silts, a product of delta formation. The land is low-lying. Elevations of the substrate range from 0 to 2.5 meters above sea level. The elongated form of the ancient islet can be seen today on aerial & satellite images (www.psalmodi.org).

The imprint of the geological history and the environmental setting can be seen in the base levels at the site – the substrate, or *poudingue*, and the overlying dark brown alluvial silts – which were probably the only natural deposits on the site. Overlying levels (including aeolian silts associated with the abbey’s abandonment) were anthropogenic in origin, the result of accumulated debris from the long history of construction and use. The earliest occupation levels were associated with the alluvial silts.

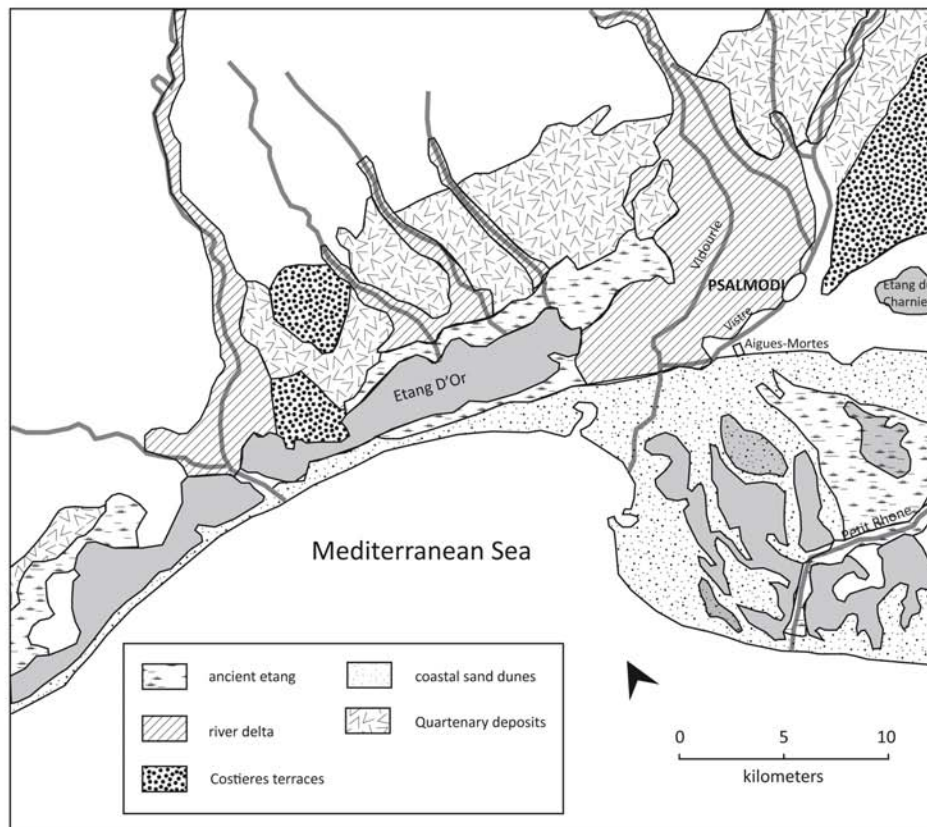


Figure 3.2 Psalmodi is at the intersection of three topographic zones. (After Py and Roure 2002)

The substrate, or *poudingue*, is characterized by a hard bumpy surface, yellowish-brown in color, which incorporates water worn pebbles, limestone concretions, and gravels. In some areas, it is scoured out into small circular depressions (Dublin and Zaneri 2008:5; Yoon 2010), while in others, it forms small humps. Table 3.1 summarizes the characteristics of the substrate as encountered on the site, while figure 3.3 shows its distribution. In several locations, the substrate is overlain by a reddish-yellow or yellowish-brown clayey silt, essentially *poudingue* that had decayed due to dampness or inundation. Both the *poudingue* and the decayed *poudingue* are culturally sterile. The mean elevation of the substrate is 14.8 centimeters above the site datum, or approximately 260 cm. above sea level. Both the standard deviation and the range are relatively high, but this would seem to reflect the bumpiness of the surface rather than an overall trend. Three-quarters (78.3%) of the recorded elevations fall within a normal range around the mean, while fully 95.7% are within one standard deviation of the mean. Lower elevations tend to cluster in the southeast quadrant, while high points are scattered across the western sector of the site. The mean elevation of the western half of the site is 11 centimeters higher than the mean in the east (10.4cm.), supporting a general impression of an overall level surface (albeit bumpy) with a slight slope toward the east.

Table 3.1 Characteristics of the substrate.

<i>Quadrant</i>	<i>Trench/profile & context/associated feature</i>	<i>Description¹</i>	<i>Elevation²</i>
northeast	10/92 profile 17	<i>poudingue</i>	+7.5
northeast	71 profile 19	<i>poudingue</i>	+10.5
northeast	102 Late Church north choir	<i>poudingue</i>	+23
northeast	102 Late Church north choir	<i>poudingue</i>	+20
northeast	102 Late Church north choir	<i>poudingue</i>	+25
northeast	102 Late Church north choir	<i>poudingue</i>	+30
northeast	102 LC north choir	<i>poudingue</i>	+22
northeast	102 profile 9	<i>poudingue</i>	+11
northeast	102 profile 8, context 8	<i>poudingue</i>	+40
northeast	9E Early Church apsidiole	<i>poudingue</i>	+16
northeast	9E Early Church center apse	<i>poudingue</i>	0
northeast	12 Early Church transepts	<i>poudingue</i>	+20
northeast	12 north transept Early Church	<i>poudingue</i>	+6
northeast	12 north transept Early Church	orange clay	+5
northeast	99 Early Church transepts	<i>poudingue</i>	+1
northeast	99 Early Church transepts	<i>poudingue</i>	+29
northeast	99 south transept Early Church	<i>poudingue</i>	-8
southeast	6 profile 24	<i>poudingue</i>	+5
southeast	6 profile 25, context 4	<i>poudingue</i>	-4
southeast	6 profile 23	<i>poudingue</i>	+17
southeast	6 profile 12/27, contexts 4, 8	7.5YR 6/6; 10YR 6/6	-30
southeast	6 profile 26, context 4	10YR 5/6	-17
northwest	15 north building	<i>poudingue</i>	+40
northwest	73 inside Early Church nave	orange-brown clay	+6
northwest	87 inside Early Church nave	<i>poudingue</i>	+25
northwest	87/73 inside Early Church nave	<i>poudingue</i>	+50
northwest	24 inside Early Church nave	dark brown & orange clay	+26
northwest	24 inside Early Church nave	<i>poudingue</i>	+18
northwest	24/70 south of W30	<i>poudingue</i>	+7
northwest	110 “narthex”	<i>poudingue</i>	+6
northwest	100 corner of W51	<i>poudingue</i>	+2
northwest	100 “narthex”	<i>poudingue</i>	+15
northwest	16 profile C	<i>poudingue</i>	+16
southwest	70 Late Cloister east	<i>poudingue</i>	+2
southwest	78 Late Cloister	<i>poudingue</i>	+16
southwest	88 Late Cloister	<i>poudingue</i>	-6
southwest	88 profile 15, context 13	10YR 5/6	+51
southwest	103 Late Cloister	<i>poudingue</i>	+22
southwest	104 Late Cloister	<i>poudingue</i>	+23
southwest	94NE Late Cloister	<i>poudingue</i>	+26
southwest	94SW Late Cloister	<i>poudingue</i>	+30
southwest	73SE west range well	<i>poudingue</i>	+19
southwest	73SW west range well	<i>poudingue</i>	+22
southwest	53 profiles 31/ 32	<i>poudingue</i>	+24

NOTES:

¹Munsell numbers and soil descriptions refer to decaying or decayed *poudingue*, which has a silty or clayey texture.

²Elevations are recorded in centimeters above site datum.

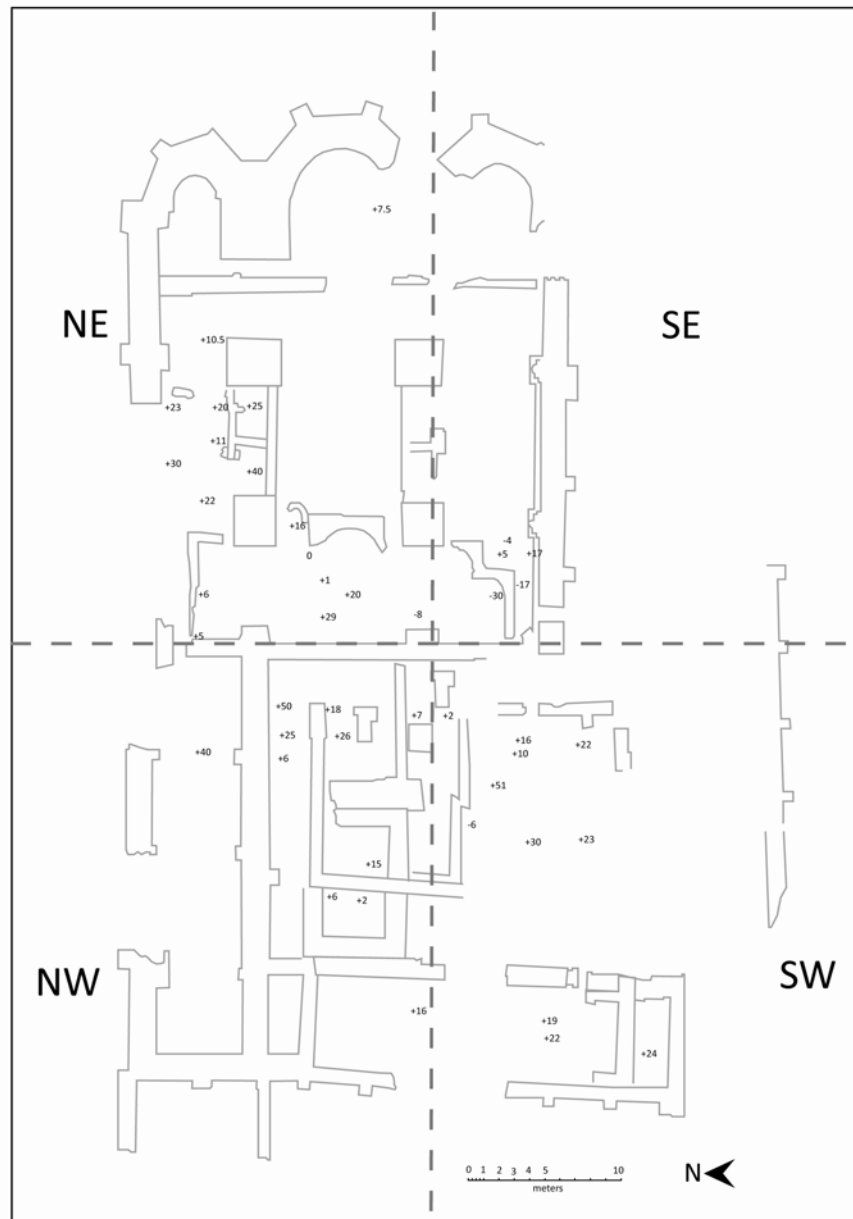


Figure 3.3 Elevations and spatial distribution of substrate.

Table 3.2 Descriptive statistics on elevations of the substrate.

<i>All recorded measurements</i>		<i>Mean elevations of site sectors</i>	
Range	-30 to +50	Northeast quadrant	+15.2
Mean	14.8	Southeast quadrant	-5.8
Standard deviation	15.3	Northwest quadrant	+19
		Southwest quadrant	+18.9

4. PRE-MONASTIC OCCUPATION LEVELS

The excavations, the stratigraphic record, and the preliminary ceramic analysis make it abundantly clear that the site of Psalmodi supported multiple occupations, at least as far back as the Pre-Roman Iron Age and the Late Ancient Period.

Pre-monastic remains were recovered in the central part of the site (trench 110), the northeast quadrant under the remains of the north choir of the Late Church (trenches 12, 25, 27, 71, and 102; cited here as trench 102), and in the southeast quadrant under the south transept of the Early Church. For the most part, these overlay alluvial silts, which formed the earliest occupation surface on the site. Figure 4.1 shows the spatial distribution and elevations of this surface (N=43). Table 4.1 lists the characteristics of the matrix, a compact fine silt or sandy silt, generally dark brown in color with inclusions of charcoal, bits of mortar, pottery, and shell. An olive-brown or dark yellowish-brown silt has also been recorded. Differences in color can be attributed to the sifting down of materials, especially crumbled mortar, from higher levels. The relatively level surface directly overlay the substrate. Mean elevation was +36.3 centimeters above the site datum. Fully 93% of the recorded elevations (N=36) fall within one standard deviation of the mean value, with 65.1% within the normal distribution. There is a very slight slope downward from west to east – at most, 20 centimeters over a distance of approximately 35 meters.

It would appear that the Early Church and adjoining buildings to the south and west were built on relatively high ground, while the Late Church expanded the sacred precinct eastward onto slightly lower ground. This dark brown alluvial surface essentially set the topographical stage for developments that began as early as the Pre-Roman Iron Age, continuing into the Late Ancient and medieval periods. The next sections of this report discuss human alterations to the landscape.

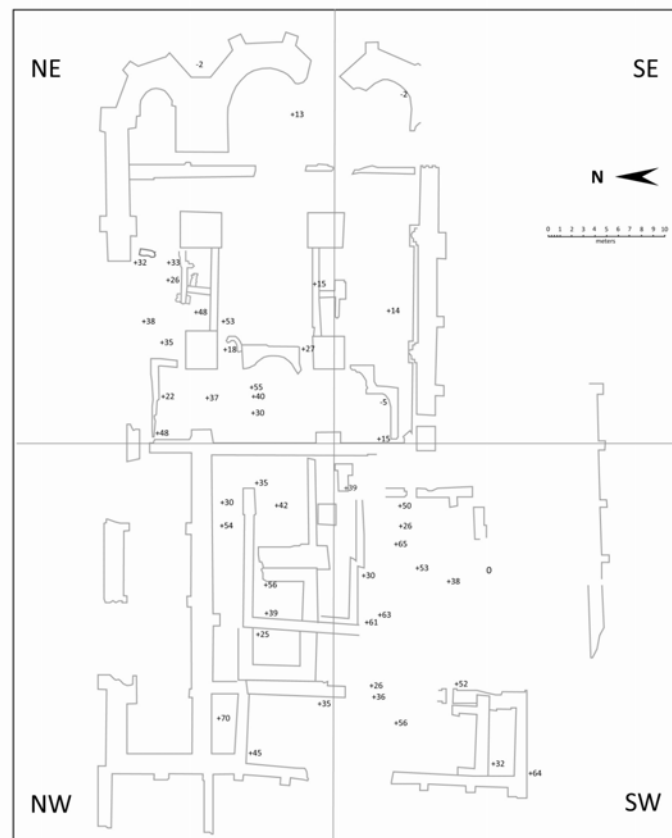


Figure 4.1 Distribution and elevations of the pre-monastic surface.

Table 4.1 Characteristics of the Pre-Monastic Surface.

<i>Quadrant</i>	<i>Trench</i>	<i>Reference/ context¹</i>	<i>Associated feature</i>	<i>Description²</i>	<i>Elevation³</i>
northeast	10	profile 16 context 9	east of center apse, Late Church	10YR 3/3	-2
northeast	92	profile 17 context 6	inside center apse, Late Church	10YR 4/4	+13
northeast	3	Broda 1978	inside south apse, Late Church	dark brown hard pack	-2
northeast	102	Young 1983	south of W1, Late Church	dark brown	+32
northeast	102	Young 1983	adjacent to grave 14-1	dark brown	+38
northeast	102	profile 9 context 11	north choir, Late Church	7.5YR 3/3	+26
northeast	102	profile 8 context 7	north choir, Late Church	10YR 4/3	+67
northeast	102	plan 23	pre-monastic pit area	10YR 3/3, 4/3	+35
northeast	8	profile 11 context 12	south choir, Late Church	7.5YR 3/3	+15
northeast	93	profile 7 context 5/6	south of W11, Late Church	7.5YR 3/2	+53
northeast	9E	field notes 1978	north of pier 10, Late Church	dark brown	+27
northeast	9E	Broda 1978	apsidole, Early Church	N/A	+18
northeast	99	Young 1989 E/F	center apse, Early Church	dark brown	+55
northeast	12	Young 1987	center apse, Early Church	dark brown	+40
northeast	99	Young 1989 S/E	center apse, Early Church	dark brown	+30
northeast	12	Young 1987	north transept, Early Church	dark brown	+37
northeast	12	Young 1987	north transept, Early Church	dark brown	+22
northeast	12	Young 1989 Z/Y	north transept, Early Church	dark brown	+48
southeast	6	profile 10 context 15	south choir, Late Church	7.5YR 3/2	+15
southeast	6	profile 12 context 7	pre-monastic tile tomb	7.5YR ¾	-5
southeast	6	profile 13 context 8	south transept, Early Church	7.5YR 4/4	+15
northwest	87	Young 1989 A/B	north gallery, Late Cloister	N/A	+30
northwest	73	Young 1983	north gallery, Late Cloister	dark brown	+54
northwest	24	Lazio 1978	nave, Early Church	dark brown hard pack	+35
northwest	24	Lazio 1978	nave, Early Church	dark brown hard pack	+42
northwest	70	Lazio 1978	south of nave, Early Church	dark/ reddish-brown clay	+39
northwest	100	1988	"narthex," Early Church	N/A	+56
northwest	100	1988	"narthex," Early Church	N/A	+39
northwest	110	Yoon et al. 2001	"narthex," Early Church	dark brown	+25
northwest	16	profile N context 3	west range	dark brown alluvial soil	+70
northwest	16	profile A cxt 19/20	north building west range	chocolate brown clayey soil	+45
northwest	16	profile C cxt 16/17	north building west range	dark brown alluvial soil	+35
southwest	78	1983	Late Cloister	dark brown	+50
southwest	88	1987	Late Cloister	brown dirt	+30
southwest	94	1986	Late Cloister	dark brown	+53
southwest	104	1988	Late Cloister	N/A	+26
southwest	88	profile 6 context 15	Late Cloister	2.5Y 4/4	+61
southwest	88	1987	Late Cloister	charcoal dirt	+63
southwest	35	profile 2 cxt 25/26	west range south building	2.5Y 4/4	+26
southwest	35	profile 2A cxt 10/11	west range south building	2.5Y 4/4	+36
southwest	95	1986	well, west range south building	dark brown	+56
southwest	56	profile 3 cxts 24, 32	outside west range south	2.5Y 4/4	+52
southwest	53	profile 31/32 cxt 4	oven, west range south building	10YR 4/3, 3/3	+32
southwest	52	profile 1 context 8	refectory (?)	2.5Y 3/2	+64

NOTES:

¹Numbered or lettered profiles were drawn between the years 2000 and 2009. Archival drawings are cited by the year of production and (where possible) by the producer of the profile.

²Soil colors are identified by Munsell number where available or by the description written on the drawing.

³Elevations are recorded in centimeters above site datum.

Table 4.2 Descriptive statistics on elevations of the pre-monastic surface.

<i>All recorded measurements</i>		<i>Mean elevations of site sectors</i>	
Range	-5 - +70	Northeast quadrant	+30.7
Mean	+36.3	Southeast quadrant	+8.3
Standard deviation	18.5	Northwest quadrant	+42.7
		Southwest quadrant	+45.8

Trench 110: A deep *sondage* south of W97 recovered vestiges of prehistoric through Late Ancient occupation. The 2001 excavation and findings are described in Yoon et al. 2001 and will only be summarized in this report. Table 4.3 lists the relevant deposits and the *termini post quem* on the ceramics.

Table 4.3 Pre-monastic deposits in trench 110.

Context	Elevation	Description	Associated features	Terminus post quem
10	+6	Substrate	none	N/A
17	+25	dark brown clay	none	pre-Roman Iron Age
14	+32	dark brown clay	post-mold (c.15)	pre- to proto-historic
13	+38-49	dark brown clayey silt	stone wall; pits (c. 8, 9)	7 th – early 8 th c.
7	N/A	mottled yellow & grayish-brown silts		early medieval

Contexts 7, 13, 14, and 17 are a series of surfaces that yielded materials dating from the Pre-Roman Iron Age to the Early Medieval Period. A post hole (context 15) cut into an early surface, most likely context 14, was found to the south of a masonry feature associated with the higher surface, context 13. This latter feature consisted of a single course of dry-laid limestone blocks oriented east/ west. The alignment is rough, with a number of gaps, but this feature appears to be a wall segment. It is embedded in context 13, thought to date to the late seventh to eighth centuries. The masonry style – large stone blocks set in a double row – is similar to Late Ancient walls in trench 102, but given the poor visibility and preservation of the two wall stubs in both sectors, this is by no means certain. The excavation of context 13 yielded a high percentage of pre- and proto-historic pottery, suggesting that the surface formed over a relatively lengthy period and that the wall could have been constructed earlier than the Late Ancient period (Yoon et al. 2001:5-6, 8). The post hole probably associated with context 14 is directly south of this wall, but whether the two features were related is not clear. Both context 14 and context 17 are described as “intact, pre-Roman deposits” (Yoon et al. 2001:8), basically scatters of domestic and imported pottery and lithics that may represent cultural or natural (fluvial) deposition. Unfortunately, the small excavation area and poor visibility hamper an interpretation of these enigmatic features and deposits.

Trench 102: The majority of pre-monastic deposits and features clustered in the northeast quadrant of the excavation area, which included trenches 14, 25, 27, and 71, later combined as trench 102. Whether the areal concentration is meaningful or merely an artifact of excavation locations and techniques remains unclear. It is possible that the lower elevations at the eastern end of the island were inundated or too marshy to accommodate occupation (Raynaud 2012; Rey 2007), but it is equally possible that the intensity of later construction obliterated the more fragile earlier deposits. The area was excavated over a lengthy period (Dodds 1982; Stoddard 1978; 1979; 1980; 1981; 1983; Stoddard et al. 1988; 1989). It was revisited as part of our stratigraphic and spatial study in 2003 and 2006 (Dublin 2003:4-11). Our objective was to develop a more nuanced understanding of the Late Ancient occupation by sequencing construction events, identifying the location of past surfaces, and assessing relationships among the various features.

The pre-monastic deposits and features are bracketed stratigraphically by the dark brown pre-monastic surface at the early end and at the late end by construction-related deposits associated with the monastic complexes. They were sealed under the floor of the north choir of the Late Church, and therefore can be securely dated to a period before the twelfth century C.E. Unfortunately, a closer dating is not possible as of this writing. Pottery recovered from midden pits in the area yielded *termini post quem* associated with the Late Ancient Period, between the fourth and eighth centuries C.E. (Dublin 2012; Yoon n.d.). Figure 4.2 shows the locations of the various pre-monastic features in this area of the site. These include living floors, fragmentary structural remains, burials, and midden pits. Each set of features will be described separately, with a concluding section that presents a hypothetical sequence of deposits.

Living floors: Our archival research (field notebook 1981; Stoddard 1979, 1980, 1981, 1983; Young 1983) revealed the presence of three superposed living floors in trench 102. These are discontinuous, due in part to disturbance from later construction and in part to a lack of physical connection between the various profiles and plans. There are very few archival profiles, but three scaled plan views (1980; 1982; 1983) proved useful in identifying surfaces. Several annual reports (Stoddard 1979; 1980; 1981; 1983) provide Munsell numbers, but not soil textures, some of which were derived from a close reading of context sheets and field notes 1978

through 1981. At that time, elevations were measured from the surface of the “high Gothic pavement” at +105 cm. asd. These were recalculated to the site datum. It should be noted that there is a rough correlation in soil descriptions and elevations between the archival data and living floors recorded in profile 9 (Dublin 2003:7-11; see figure below). Table 4.4 summarizes both sets of data and correlates the various surfaces.

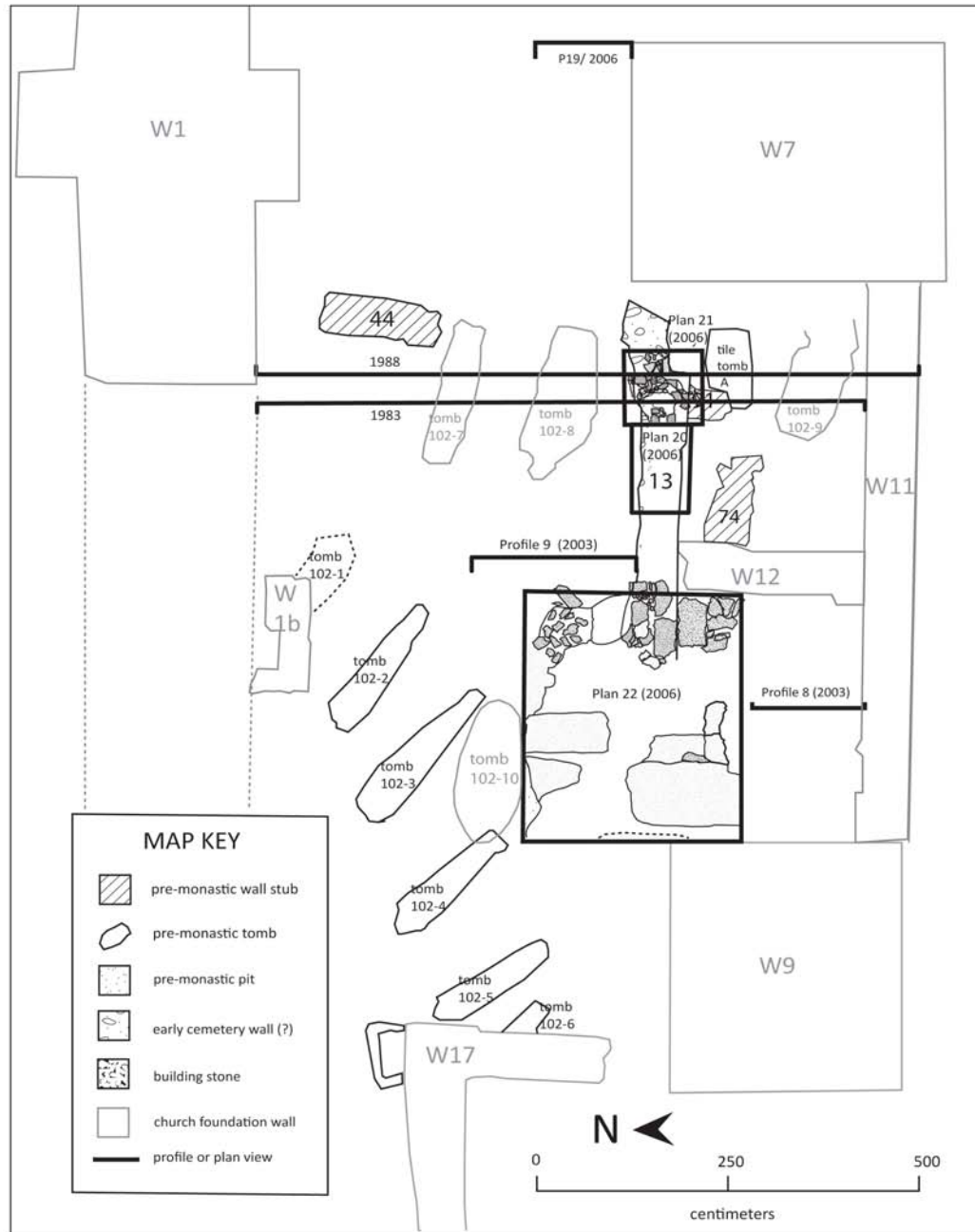


Figure 4.2 Plan view, trench 102, showing pre-monastic features and drawings used in analysis.

Table 4.4 Pre-monastic living floors.

# ¹	Context ²	Soil description	Munsell	Inclusions	Elevations ³
1	23, 37-40	dense, smooth dark brown	10YR 4/3, 3/3; 7.5YR 4/6	charcoal, mortar, tile, shell	+35 - +50
1	5, 12	dark brown	N/A	N/A	+40/ +47
1	9.11	dark brown sandy silt	7.5YR 3/3	Pebbles	+35/ +44
2	15, 19	brown to yellowish-brown	10YR 5/4, 5/3	ceramics, bone, charcoal, shell	+50
2	9.10	brown sandy silt	7.5YR 5/3	Rocks	+44/ +53
3	25	medium gray-brown	10YR 6/4	mortar, gravel, tile chips	+60
3	17 ⁴	hard-packed	N/A	tile, stone	+63
3	9.9	dark brown sandy silt	7.5YR 4/2	mortar, stones, tile	+59
3	112	crumbly	N/A	white & yellow mortar, stone, charcoal	+60
3	118	hard-packed	N/A	yellow mortar, burned soil, charcoal	+58

NOTES:¹Surfaces are numbered from earliest (1) to latest (3)²Context numbers without a profile number are those assigned during the excavations and represent archival information based on context sheets 1978 - 1981.³Elevations refer to the upper surface of the context. Those elevations extrapolated from field notes are approximate, since it is not always clear whether they were shot in from the site datum or measured from the high Gothic pavement.⁴Context 17 is not described in the 1981 or 1983 reports. The context sheet (1981) described it as “hard rammed dirt mixed with tile and stone.” It is located north of wall 13, inside a probable structure and may represent an interior floor.

Surface 1, the dark brown alluvial deposit, overlay the substrate and was found in a number of areas across the trench. Surface 2 (contexts 15, 19, 9.10), lighter in color and sandier, appears to have built up over a period of continued occupation. Based on similarities in the soil matrices and elevations of deposits in the western, midden section and the central section of the trench, these appear to represent a more or less continuous ground surface cut by clusters of trash pits. The uppermost surface (contexts 17, 25, 9.9) consists of a compact gray-brown or dark brown matrix cut by trash pits containing burned debris and destruction rubble. The presence of three discrete surface deposits suggests a relatively lengthy occupation accompanied by shifts in the use of the area. This is explored further in the succeeding sections.

Structural remains: The excavations and subsequent stratigraphic study revealed five wall stubs (W13, 44, 74, 91, 140). Four are sealed under floor of the Late Church, while the fifth (W13) overlay walls 91 and 140, and was built at a later date. All five walls pre-date the Late Church, but there are no absolute dates. Based on the stratigraphic superposition and the contents of the nearby trash pits, it appears that walls 44, 91, 74, and 140 dated to the Late Ancient period. Table 4.5 lists the descriptions of these walls.

Table 4.5 Structural remains in Trench 102

Wall	Associated stratum ¹	Elev ²	Masonry styles ³	Stone size ⁴	Wall width ⁶
13E ⁶	dark brown and brown sandy silt	+47	mortar base, mix of blocky & brick-like, squared corners, rubble core	32, 24, 10	95-100
13W ⁶	dark brown sandy silt	+50	irregular, blocky, chinked with stone chips & <i>pierres froides</i>	55, 30, 18	100
44	dark brown silt	+31	blocky, irregular on east face, squared-off on west, chinked with <i>pierres froides</i> , pebbles, chunks of <i>poudingue</i>	44, 31, 14	56
74	<i>poudingue</i>	+30	Blocky, squared-off chinked with pebbles, water worn stones, chunks of <i>poudingue</i>	41, 22, 10	56
91	yellow-brown to dark brown sandy silt	+25	irregular limestone, water worn stones, & <i>poudingue</i>	20, 17, 6	54
140	dark brown silt	+31	irregular limestone, river cobbles	19, 20, 10	52

NOTES:¹deposit associated with basal courses or cut through for builders' trench (W13W)²elevation measured in centimeters above or below site datum³all walls were built of rough cut limestone; stone shaping is categorized as: “blocky” (relatively deep); “irregular” (with little or no shaping); “squared-off” (edges are finished); or “brick-like” (rectangular, shallow)⁴dimensions in centimeters of largest stone (length, width, height)⁵wall widths are derived from the average of three measurements taken at each end and the center⁶the designation 13E refers to the eastern section of W13 (rebuilt during the Late Church period), while 13W denotes the original earlier wall.

Poor preservation, especially in walls 91 and 140, precludes a detailed comparison of masonry styles, and a comparison of stone sizes and finishes is not very helpful because of the common practice of reusing old stones in later construction. There are, however, significant differences in the basal elevations and strata associated with W13 as opposed to the earlier walls 44, 74, 91, and 140. The earlier walls are founded more deeply, resting on *poudingue* or alluvium, while W13 was laid on surface 2 at a higher elevation. W13 is almost twice as wide as the earlier group and bound with a pale yellowish-brown mortar, vestiges of which survive in the re-pointed eastern section. W13E is also distinctive in its use of the rubble core construction typical of later periods at the site, although stones from the original wall were included in the masonry mix. It remains possible that there were as many as five early structures in trench 102, with each wall stub representing a single structure. The most parsimonious explanation, however, is that there were only two – a single structure that was bounded by walls 44, 91, 74, and 140, and a later, overlying wall (W13).

Figure 4.3 shows the configuration of the early wall stubs relative to the pit features, tile tomb A and the tombs along the north side of the trench. The alignment of the four early wall stubs suggests that they formed three sides of the foundation of a single, rectangular structure. By extending the lines of each wall stub to a point where they crossed, we saw that they met at roughly 90° angles, supporting this single-structure hypothesis. The building measured at least 2.25 meters by 5.75 meters and was oriented approximately 15° north of grid east, an alignment that distinguished this early structure from the grid east orientation of wall 13 and the later ecclesiastical features. There were no associated builders' trenches or wall footings. Apparently the foundation was laid directly on the existing surface. The lack of footers suggests that the stone foundation supported a relatively light superstructure, perhaps of wattle and daub, that later burned down. This would be consistent with the recovery of an abundance of burned wood and daub from midden deposits within the line of the structure.

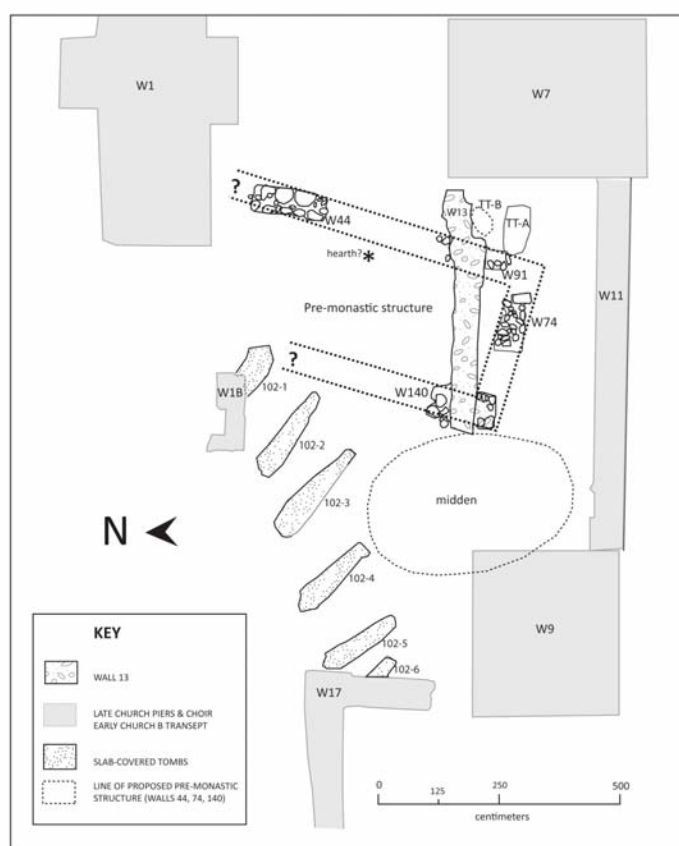


Figure 4.3 Pre-monastic wall alignments, trench 102.

The stratigraphic evidence clearly establishes that W13 was built after the destruction of the earlier structure. It overlies the projected southern end of the early building and is broken off on the east by W7, the northeastern pier of the Late Church. The wall is oriented to grid east, parallel to the later burials in the area and to both Early and Late Churches. In its entirety, W13 measures approximately 5 meters long and 1 meter wide. Approximately midway along its length, the masonry break shown in figure 4.4 separated the original western section from the eastern end, which was rebuilt as part of the north choir of the Late Church. The builder's trench for the original (western) section cut through pits containing burned wood and daub associated with the fire that destroyed the earlier structure (see figure 4.8, page 21). The stratigraphic evidence brackets the initial construction roughly between 800 and 1175 C.E. W13 does not connect with any other walls in trench 102 and it does not appear to be part of a structure. Rather, it may be a segment of the funerary landscape of the Early Church, perhaps a cemetery wall. The proximity of tombs 102-7 and 102-8, which date to the Early Church period, support this explanation.

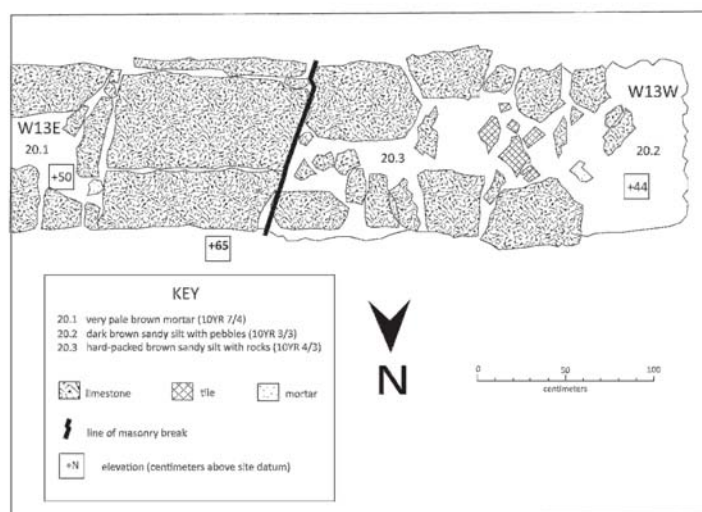


Figure 4.4 Plan view of Wall 13, showing masonry break.

Tombs: This section synthesizes the information on the tombs found in trench 102. The primary data are drawn from annual reports, drawings, and field notes (Dodds 1982; B.W. Stoddard 1978; 1979; 1980; 1981; 1983; context sheets 1980-1983; field notebooks 1978-1989). Our synthesis considered only those tombs for which we have precise information on the vertical and horizontal location and associated stratigraphy. The resulting sample includes two tile tombs, six slab-covered tombs, and four anthropomorphic tombs (see figure 4.2, table 4.6).

The tombs fall into three typological groups (Dodds 1983:4; Young in Stoddard 1980:13) Tile tombs (group A) consist of a tile enclosure with a peaked roof. Group B includes a set of six slab-covered tombs that are ranged in a rough line across the northern section of trenches 102 and 12. These exhibit a unique orientation – northwest to southeast with the head toward the northwest. The third set (group C) consists of anthropomorphic tombs that are similar in style and grid east orientation to tombs in the cemetery of the Early Church and most likely represent a northern continuation of that cemetery. Tomb style is roughly associated with tomb sequence, although there is some temporal overlap, particularly at the later end of the sequence (Young personal communication 2011). The tile tombs at Psalmodi are similar to those found in Early Christian cemeteries elsewhere and are generally considered the earliest tomb type (Young in Stoddard 1980:13).

Table 4.6 Sample of tombs, Trench 102.

<i>Tomb #¹</i>	<i>Type</i>	<i>Stratigraphic information</i>	<i>Reference²</i>
TT-A	tile tomb	see figure 4.6; cut by builders' trench W7; cut into surface 1 with remains resting on substrate	Stoddard 1978
TT-B	tile tomb	see figure 4.6; cut by builders' trench W7; cut into surface 1 with remains resting on substrate; overlain by surface 2	Stoddard 1978
102-1	slab-covered	NW orientation, 55° N of grid E	Stoddard 1983
102-2	slab-covered	NW orientation, 55° N of grid E; cut into surface 2; overlain by rubble, burned daub, and charcoal	Stoddard 1980
102-3	slab-covered	NW orientation, 55° N of grid E; cut into surface 2	Stoddard 1980
102-4	slab-covered	NW orientation, 55° N of grid E	Stoddard 1981
102-5	slab-covered	NW orientation, 55° N of grid E; cut into surface 2	
102-6	slab-covered	NW orientation, 55° N of grid E; cut by W17	Stoddard 1981
102-7	anthropomorphic	E orientation; cut through W44/91	Stoddard 1979
102-8	anthropomorphic	E orientation; cut through W44/91	Stoddard 1979
102-9	anthropomorphic	N/A	Stoddard 1978
102-10	anthropomorphic	E orientation; cuts slab tomb 102-4	

NOTES:

¹Because of inconsistencies in the original numbering, the tombs have been renumbered for this report; see figure 4.2 for tomb locations.

²Reports were authored by B. W. Stoddard, but tomb descriptions in Stoddard 1979 – 1983 were contributed by Young.

Tile tombs are scattered across trenches 6, 9E, 12, and 102. The slab-covered and anthropomorphic tombs in trench 102 exhibit a degree of spatial clustering – slab-covered tombs along the north and anthropomorphic tombs generally in the east, cutting through the line of the early structure. The spatial clustering (or lack of clustering, in the case of the tile tombs) suggest that the area housed three apparently temporally distinct cemeteries (also see Dodds 1982:4).

The stratigraphic data gleaned from the reports corroborates this hypothesis. Group A tombs were cut into surface 1, the dark brown alluvial silt, with the human remains resting directly on the substrate. Group B tombs, on the other hand, were cut into surface 2. Tomb 102-2, part of this group, was overlain by rubble containing burned material, indicating that it pre-dated the burning of the early structure. That this group was cut into surface 2 (rather than surface 1) indicates that these tombs were later than the tile tombs, while the overlying burned deposits would place the tombs in a temporal position before the destruction of the early building. A rough similarity in orientation between this building and the Group B tombs – or rather the dissimilarity from the later grid east – suggests an association between the tombs and the structure. Also, the line of slab tombs appears to fall outside the line of the early structure, which we would expect were the two sets of features contemporaneous. Although tomb 102-1 appears to overlap the line of W140, this may be an artifact of the joining of several plan views, or of inaccuracies in the W140 alignment because of the short length of the wall stub and the high level of disturbance. The third group was probably associated with the Early Church, as noted above. Tombs 102-7 and 102-8 were cut through the line of W44/ 91, indicating that these interments occurred after the destruction of the early structure. As figure 4.5, drawn in 1983, demonstrates, tombs 102-7 and 102-8 were cut into the rubble associated with the destruction of the early structure. Tomb 102-10 cut through the slab-covered tomb 102-4 and two trash pits containing burned material, another indicator of the relatively late date of this group.

A final note on the temporal situation of the tile tombs is in order here. Based on our revisiting of trench 102 and a close reading of the archival material, we suggest that the tile tombs were either associated with the early structure or pre-dated it. Figure 4.6 shows tile tombs A and B in relation to walls 7, 13, and 91. According to our reconstruction, W91 formed part of the southeast corner of the early structure, aligning along the east with W44 and along the south with W74. Tomb A was *in situ* when excavated and Tomb B remained unexcavated. It appears that W91 abutted the tombs, a finding that was confirmed during our re-examination in 2006. This indicates that the early structure was built after the tile tombs were in place, that the tombs were probably visible, and that the builders sited the structure so as to avoid damaging them. A third tile tomb (tile tomb C?) was disturbed by the interment of the individual in tomb 102-2, thus placing

this tile tomb at least before the group B tombs. This tomb was in ruins at the time of the excavations and our only knowledge of it is from a plan view drawn in 1982 (Dodds 1982) and brief field notes. Three additional tile tombs were found in trenches 9E and 12, to the west of trench 102, suggesting that the area may have been used as a cemetery before the construction of the early building. Unfortunately, the data are insufficient to explore this question further.

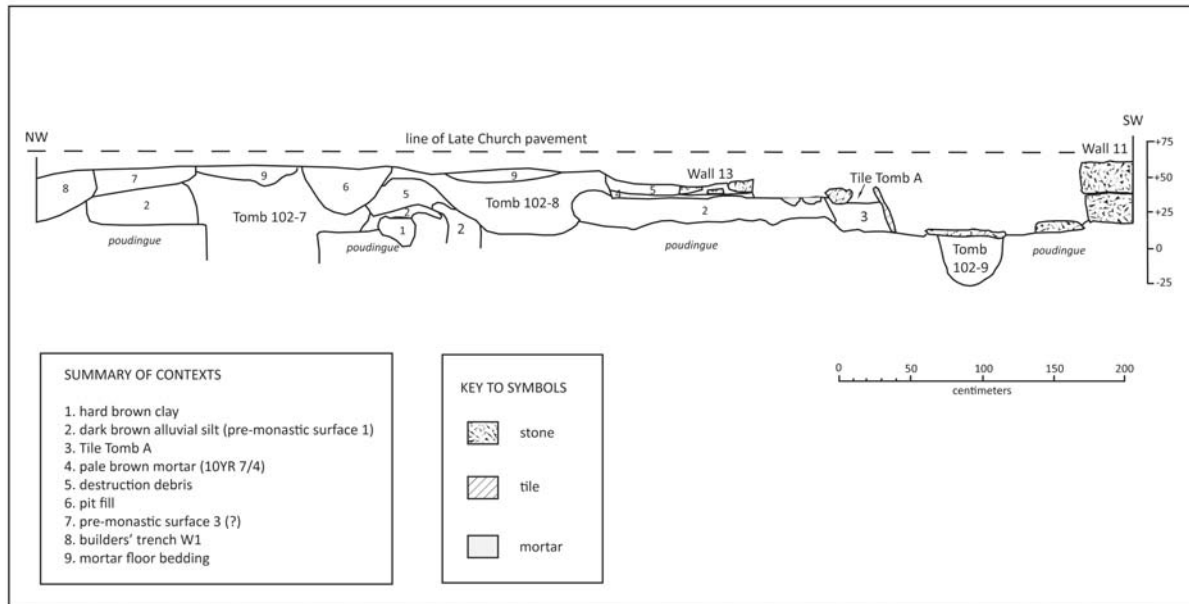


Figure 4.5 West-facing profile of trench 25/102 showing the stratigraphic positions of tile tomb A and tombs 14-1, 14-2, and 14-3. (after Young in Stoddard 1983).

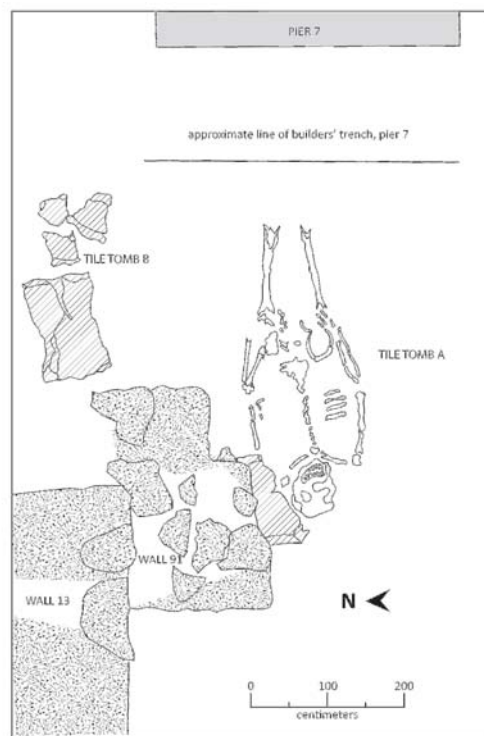


Figure 4.6 Plan view, Tile Tomb A, Trench 102 (after Stoddard 1988:18-19).

Pit Features: Trench 102 is pocked with clusters of inter-cutting pits, as shown in the plan view, figure 4.7, and the profile, figure 4.8 (Dublin 2003:7-11). These drawings were done in 2003 and 2006 respectively, well after the excavations. As such, they present an incomplete picture of the various pre-monastic midden deposits in trench 102. We have combined them with information from the context sheets and field notebooks (1978-1988) to develop a synthesis for this report. Again, we have included only those features for which there exist adequate provenience and content information. The sample, however, is by no means a full catalogue of pit features across the site or even in this sector, nor is it necessarily representative of the full range of activities. Table 4.7 presents an overview of the pits used in our analysis.

Table 4.7 Sample of pit features, Trench 102.

Context ¹	Elevation	Surface ²	Contents	Reference
8.9	+43 - ?	1	<i>poudingue</i> , rocks, mortar	Dublin 2003:7
9.15/16	+20 - -3	1	decayed mortar, <i>poudingue</i>	Dublin 2003:10
22.7	+35? - -1	1 (22.9/ 37)	<i>poudingue</i> , tile, rock	Dublin 2006 plan 22
22.8 (42)	+32 - 0	1 (23)	stone, tile, pottery	Dublin 2006 plan 22 field notes 1980
22.4 (14, 30, 31)	+57 - +8	1/2/3 (15/19/40)	(14) white grainy mortar, tile, pottery (30) pebbles, gravel (31) dry stony mortar	Dublin 2006 plan 22 field notes 1980
24, 28	+40 - +20	2 (15/19/40)	yellow mortar, pottery	field notes 1980
5	+50 - ?	2?	yellow mortar, tiles, burned soil	field notes 1980
123	+50 - +3	2 (112)	stone, tiles, yellow & white mortar, <i>poudingue</i> , daub	field notes 1982
22.3 (18)	+54 - +20	2 (15/19/40)	burned tiles, charcoal, reddened soil	Dublin 2006 plan 22
113	+57 - +20	3 (112, 118)	reddened soil, burned tiles, charcoal	field notes 1982
9.13	+43 - +20	9.12 ³	reddish-yellow fine sand, charcoal, burned daub	Dublin 2003:10
9.7/8	+53 - +23	3 (9.9)	tile, mortar, rocks	Dublin 2006 plan 22
10	+59 - +50	3 (25)	white mortar	field notes 1980
9.4-6	+60 - +35	9.7/8 ³	tile, burned daub, mortar, charcoal	Dublin 2003:9
22.1 (35)	+60 - +18	3 (25)	ceramics, tiles, daub	Dublin 2006 plan 22 field notes 1980
22.5	+61 - +8	3 (25)	tiles, reddened soil	Dublin 2006 plan 22
22.6 (32)	+65 - +22	14/30/31; 42	tiles, daub	

NOTES:

¹During the excavations, context numbers were assigned in the order in which a stratum was dug. During the stratigraphy project, context numbers included the profile or plan number and stratum. Context numbers assigned during the excavations are in italics.

²Context numbers of surfaces are in parentheses after the surface number.

³These two pits are not directly associated with a defined surface, but rather with other features that define them as late in the pit sequence. Context 9.13, is cut into debris apparently associated with the destruction of W13 (context 9.12), while context 9.4-6, is cut into an earlier pit, context 9.7/8. Context 35 is cut into two previous pits (contexts 14/30/31 and 22.8/42).

Our window of visibility is limited to two clusters of pits, one to the south of W13 and a second to the east of that wall. Unfortunately, most fill deposits were not screened, so the artifact sample can only be considered suggestive, not representative. Within these parameters, however, we can identify patterning among four variables – superposition, intercutting, associated surfaces, and contents – that provide some insight on timing and activities. Artifact inventories have not been completed as of this writing, so we have relied on descriptions in the context sheets rather than counts or densities of material.

The association of pits and superposed surfaces indicates that midden deposition occurred over the entire pre-monastic occupation in this area of the site. The deposits can be bracketed between the construction of the early structure to its destruction by fire and the subsequent construction of W13. This is supported by the impression that most of the pottery recovered from these deposits dates to the Late Ancient Period, between the fifth and seventh centuries (Dodds 1983:6; Stoddard 1988:20), as well as the complex pattern of intercutting visible in figures 4.7 and 4.8 and, to some extent, by the contents of the various pits. Weak

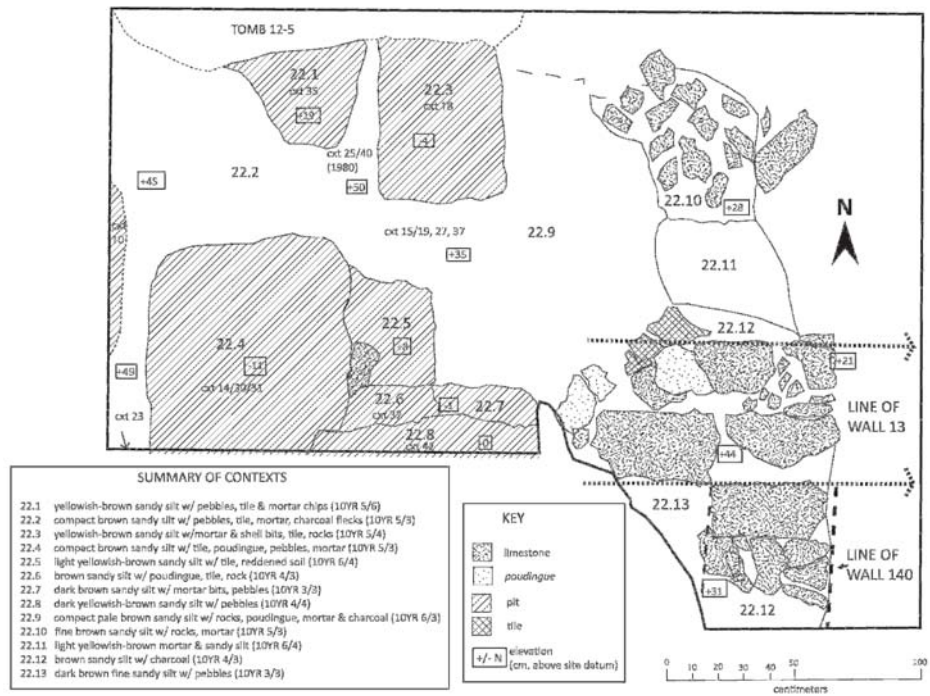


Figure 4.7 Plan view, pre-monastic midden area south of Wall 13.

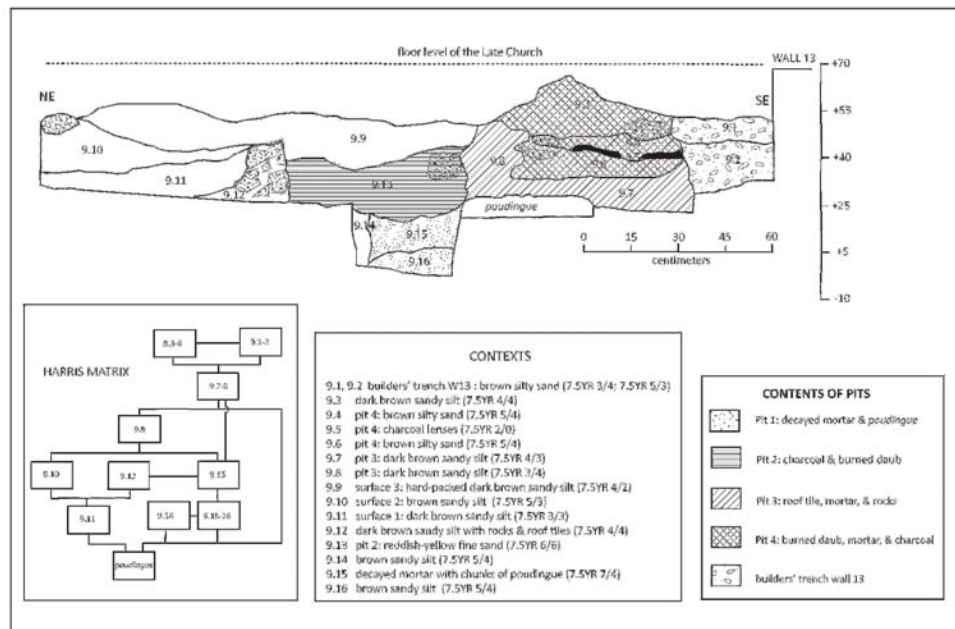


Figure 4.8 Profile, west-facing internal baulk of trench 102, showing intercutting pits.

patterning in the contents allows us to hypothesize that there were two, perhaps three, discrete temporal episodes of midden deposition, the first two associated with the building and use of the early structure, and the latest occurring after its destruction and before the construction of W13

Pits associated with the latest surface contained burned material – ash, charcoal, and burned tile, along with quantities of burned daub. These include pits 2 and 4 (figure 4.8) and contexts 5, 113, 118, and 123, described in the field notes (1988; 1982). All were located in the same general area, north of W13 and apparently represent clean-up activities after the destruction of the early building and the construction of W13. Pit 4 was cut by the W13 builders' trench, and the later contexts yielded traces of yellow mortar of a type associated with that wall. In the western pit area, two pits containing burned material (contexts 22.1 and 22.3) were cut by the Early Church Period tomb 102-10. This stratigraphic position places them in the latest pre-monastic phase.

Pits dug into surfaces 1 and 2 contained construction-related material – chunks of *poudingue*, mortar, and rock – and quantities of broken pottery. The pottery tended to be concentrated in pits dug into surface 2 in the area west of W13 (figure 4.7), outside the line of the early structure. The question remains as to whether the disposal of broken pottery was associated with the occupation and use of that structure. These features contained, in addition to the ceramics, other less numerous finds including luxury table glass and metal objects. The quantification of ceramics from contexts 24 and 28 provided a *terminus post quem* during the late sixth century C.E. (<http://www.psalmodi.org/PSCeramicQuant.html>) and a mean ceramic date of 491.9 C.E. (Dublin 2012), both dates squarely situated in the Late Ancient period. The group of pits dug into the dark brown surface 1 generally contained construction-related material, perhaps associated with the construction of the early building. Pit 1 in figure 4.8, filled with a mass of decayed mortar, rocks, and *poudingue* in a sparse soil matrix, is a good example. It would appear to be associated with construction activities, including digging out chunks of substrate to level the building surface and mixing mortar.

Stratigraphic sequence and discussion: Clearly, this area of the site was intensively used during the Late Ancient Period. The stratigraphy and features that we examined here can be placed in a simplified sequence, shown in figure 4.9. Since the various sources of information were not physically connected, coordinating living surfaces and features was the key to sequencing the discontinuous strata. Our analysis and the sequence we present here includes only a fraction of the excavated contexts. While it is clear that these deposits and features pre-date the twelfth century, the stratigraphic sequence presented here must be considered hypothetical, based on a single line of evidence. Without radiocarbon dates, a continuous stratigraphic record across the area, or strong artifact associations, it is impossible to confirm the sequence, to establish absolute dates. The hypothetical sequence needs to be further studied in association with a close reading of the artifact assemblage.

The stratigraphy suggests that there were two or three sets of activities or events, each characterized by a different mix of features. The tile tombs and the foundations of the early structure are associated with surface 1, although the juxtaposition of tile tomb A and W91 suggests that the tombs were in place before the construction of the building. The early pits containing construction material were most likely associated with construction activities, such as mixing mortar and stockpiling building stone for the foundations. Once construction was completed, there are distinct differences in the distribution of features inside the line of the structure versus outside that line. Directly west of the structure was a concentration of trash pits that contained high densities of fifth and sixth century pottery. The pits, dug into surface 2, were likely associated with the early structure, given their adjacency to that building. The area also seems to have supported a small cemetery, consisting of a line of tombs in a similar orientation to that of the early structure.

The trash pits cut into surface 3 contained reddened soil, burned daub, charcoal, and ash, and were apparently associated with clean-up activities after a fire that presumably destroyed the early building. It is likely that the clean-up was in preparation for the construction of W13, since the soil matrix also yielded traces of yellow mortar similar to that found in the lower courses of that wall. Tombs 102-7 and 102-8 cut through the line of W44/ 91, indicating that these interments also post-dated the fire. The tombs were cut into construction debris, probably associated with the dismantling of the earlier walls and they were directly overlain by the floor bedding for the Late Church. This would bracket them between the pre-monastic period and the construction of the Late Church circa 1175 C.E., more or less coterminous with the Early Church and

its cemetery. It is not inconceivable that W13 and the adjacent tombs are associated with the funerary landscape of the Early Church.

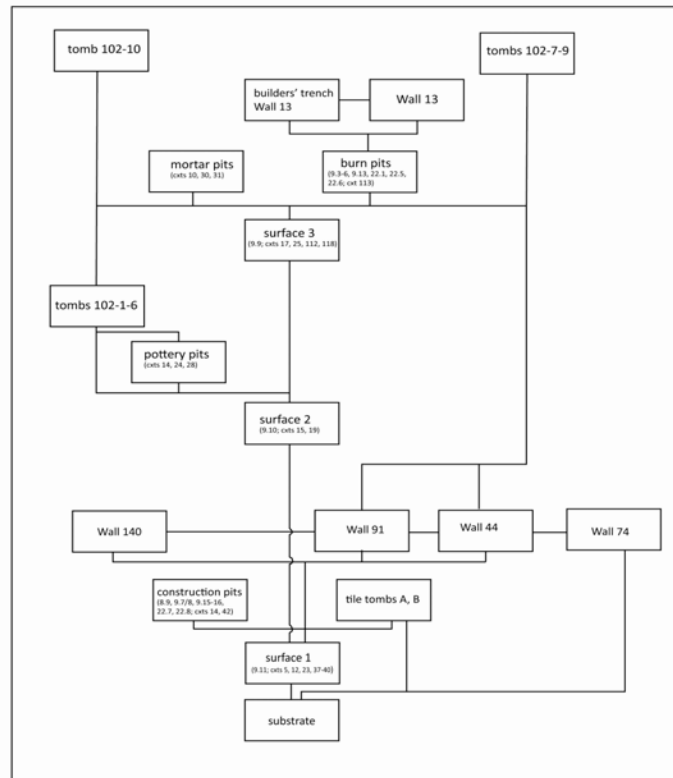


Figure 4.9 Proposed stratigraphic sequence, Trench 102

The function of these early remains is unknown. Were they residential, commercial, or religious, or did they serve multiple functions? Did the function of this area change over time? At this point, it is impossible to address these questions with any certainty, although we can suggest several possibilities. If the tile tombs did in fact pre-date the other features, the area may have initially been used as a cemetery, an emerging sacred locale. Or was there an early sacred association? The historian Georges Rivals, drawing on French monastic tradition, wrote

*“... l'abbaye [Psalmody] dut être fondée au début du Ve siècle ... Un homme éminent ... Castor, évêque d'Apt, établissait à Nîmes en 419, le monastère de Saint-Faustin ... Vraisemblablement, s'il n'y présida pas lui même, il encouragea **au milieu des étangs solitaires, où plus tard s'élèverait Aigues-Mortes, l'érection de modestes cabanes de chaume.**”* (Rivals 1937:1; emphasis mine)

Presumably such hermitages (if they existed) were simple affairs that would not have left much evidence in the archaeological record, but the presence of a rammed earth structure on the island raises some intriguing possibilities.

Initially, the five wall stubs were thought to represent a single structure, perhaps a villa associated with the post-Roman occupation (Young 1992:144; Young and Carter-Young 1987), but the relatively flimsy construction and the findings of the wall alignment study refute this. The high quality of the associated ceramics and luxury glass would argue against the idea that this small building was used by local peasants or fishermen (Yoon, personal communication 2006). The abundance of imported ceramics suggests a commercial function, perhaps as an off-loading and warehousing area for trade goods (Raynaud 2012; Py and Roure 2002).

The island between the ancient lagoon and the Vistre River was ideally situated to function as a trading entrepôt, similar to the role of the site at Le Cailar at the far end of the lagoon (Py and Roure 2002). Psalmodi sat along a transportation route from the coast to the uplands, and the abundance of imported ceramics speaks to participation in a larger Mediterranean trade network. The site also lies along the ancient Route du Sel leading from the salt pans of the Camargue to the Alps (Clément 1989). The monks of Psalmodi were active participants in the salt trade, the salt pans at Peccaïs were operating as early as the Roman period (Kurlansky 2002:154ff.), and there is ample reason to suspect that salt production in this area was quite ancient. At the same time, the cemeteries could be an indication that this was a sacred site from the onset of occupation, although the presence of tombs does not preclude additional secular roles. In any case, Psalmodi clearly served as a burial place before the establishment of the monastery.

Trench 6: Two tile tombs were excavated in trench 6, south and west of trench 102 (field notes 1977). The smaller, westernmost tomb is associated with the transept, since it abuts the south wall, which also serves as part of the tomb. The larger, eastern tomb, sealed under the transept of the church, is associated with a ground surface that was in place when the Early Church was first built. Although this tomb was initially thought to align with the southeast corner of the transept, closer observation indicated that it was in fact slightly north of and at an angle to the unexcavated corner of W83. In other words, the interment occurred earlier than the construction of the church and was not associated with the transept (Dublin and Zaneri 2008:13).

The profile, figure 4.10, illustrates the stratigraphic relationships between the tomb, the overlying surface, and the foundation walls of the transept (Dublin 2003:18-20; Dublin and Zaneri 2008:13). The grave was cut into the substrate, which is relatively low (about -30 cm.) in this area, and there is scant evidence of the dark brown pre-monastic surface found elsewhere on the site. The tomb was built of red tiles on the north, south, and east and yellow tiles on the west and was covered by a stone slab (field notes 1977). The grave was excavated in 1977 and the field notes do not provide elevations for the human remains. The tomb was dug to a depth of more than 40 centimeters into the substrate and was filled with a thick, compact level of mottled silts (contexts 12.8-14, 27.4, 30.2). After filling, a second surface (context 12.7) accumulated and remained in place long enough for substantial vegetation, visible in the form of root molds, to cover the tomb. The builders' trench for the Early Church transept (context 12.5) was cut into this second surface down to the surface of the earlier tomb fill. The basal courses of W83 rested directly on this later surface. The stratigraphy demonstrates that this tile tomb quite clearly pre-dates the Early Church. Whether this is the case for the tile tombs in trenches 9E, 12, and 102 cannot be ascertained through stratigraphy alone. Radiocarbon dates on the human remains are essential for establishing contemporaneity and determining absolute dates for the tile tombs.

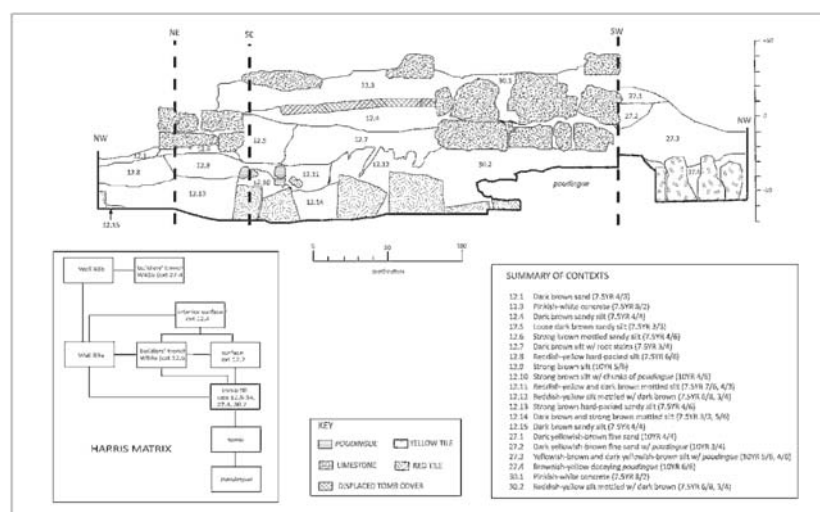


Figure 4.10 Profile of the north, south, and east baulks of Trench 6 SW, showing tile tomb B.

To summarize key findings regarding the pre-monastic remains, there is clear stratigraphic evidence of extensive Late Ancient occupation under the Early Church and the north choir of the Late Church. Bronze and Pre-Roman Iron Age artifact scatters point to the presence of even earlier occupation of the island, but these may represent redeposited material. The Late Ancient deposits include the remains of an apparent wattle-and-daub building that was coterminous with midden deposits containing an abundance of Late Ancient pottery. In general, the tile tombs appear to represent the earliest tomb grouping in the area, perhaps pre-dating even the early structure. The tile tomb in trench 6 clearly pre-dates the Early Church, and the presence of an intervening surface with considerable root growth suggests that there was an occupational hiatus between this interment and the construction of the Early Church. Wall 13, which cuts the earlier structure, was built relatively late in the sequence, possibly as late as the cemetery of the Early Church.

5. THE EARLY CHURCH

The discovery of the remains of an earlier church under the Gothic church generated considerable research attention (Dodds 1982; 1986; field notes 1977; Shaffer 2005; Trimble 1995). To reconstruct the stratigraphic relationships across this church, we relied heavily on the existing archival drawings, field notes, and annual reports (Dodds 1982; Stoddard 1978; 1980; 1983; Stoddard et al. 1988; 1989; Trimble 1995; Yoon et al. 2001). Previous researchers had better access to the remains of the Early Church and their findings were based on direct observation. The nave and western extension of the Early Church were backfilled in 2001, before we began our work on the site. Therefore, except for the south transept and a small area in trenches 54 and 88 (Dublin 2002:18-26; Dublin 2003:17-22; Dublin and Zaneri 2008), our data base is archival and limited in scope. Our analysis is meant to supplement the previous architectural and stratigraphic studies on the Early Church; it is not intended to be a reworking of the entire body of research. Our focus is on identifying floor levels and work surfaces and on integrating that information with the previous research. Figure 5.1 shows the locations of the various drawings that were used in this analysis. A brief summary of the previous research will provide essential background.

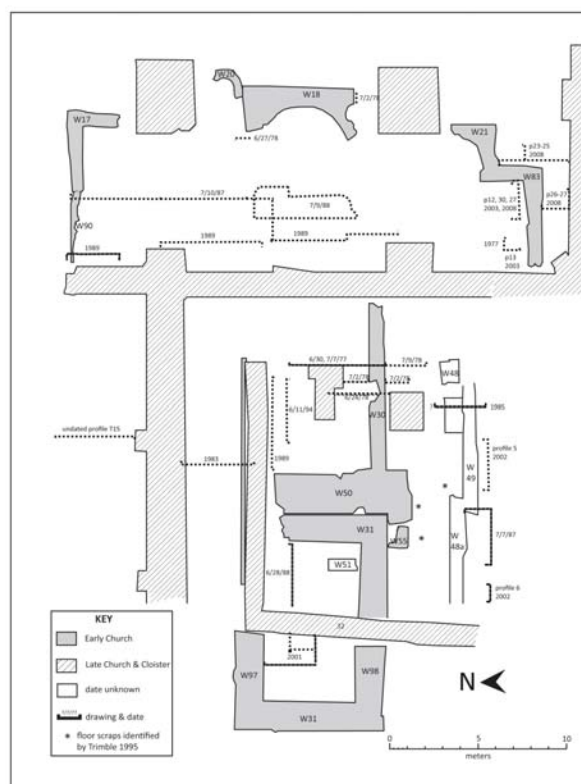


Figure 5.1 Drawings used in the stratigraphic analysis of the Early Church

Previous Research: Previous work was concerned with understanding the configuration of the church and placing it in a temporal context. The art historical research indicated that the church supported a single nave, two large protruding transepts, and three apses (Dodds 1972; 1982; 1986; Shaffer 2005). The location of the western end was never established, and there remained some questions about the presence of side aisles. In her seminal studies, Dodds identified two building campaigns. The first campaign laid out the basic elements of the structure. The second, after a fire that apparently destroyed much of the initial structure, restored the nave and transepts, activity that was visible in horizontal masonry breaks and the irregular line of the north transept. An apsidiole was built at the northeast corner of the center apse, and a large rectangular extension thought to be a tower was added at the west end. On the basis of architectural *comparanda* and historic documentation, Dodds attributed these campaigns to the late eighth and early eleventh centuries, respectively. The dates have been subject to debate, particularly the early date for Church A. The various arguments are well summarized in Shaffer (2005), who provides a convincing justification for the Carolingian association. Trimble's wall phase study (1995) revisited the church from the perspective of stratigraphic relationships, wall abutment and bonding patterns, masonry style, and mortar colors and textures. Based on these variables, she identified a minimum of three building events, tabulated below. The third construction phase included the reinforcement of the west end with the construction of walls 50 and 52 (Trimble 1995:5).

Table 5.1 Phase markers, Early Church (after Trimble 1995).

<i>Phase</i>	<i>Wall #s</i>	<i>Masonry in nave</i>	<i>Mortar</i>
A	90, 18, 83, 30, 26a	lowest 4 courses + 2 rising(?) courses w/ large stones	yellow clayey soil 10YR 6/4, pebble & lime inclusions
B	17, 83B, 30B, 31/97/98, 53	regularly laid stones; mortar pointed to create a flat façade	hard sandy white mortar, grayish- blue tinge (10YR 8/1), tiny pebbles
C	30C, 50/52, 48/49	3 uppermost courses at west end, more regularly spaced smaller stones	very sandy, friable beige mortar (10YR 7/2) w/ water-worn pebbles

NOTES:

Walls 20 (apsidiole) and 51 are not included. It is likely that W51 represented the east and north walls of a Phase A structure west of the nave, but this is not clear. There are some questions regarding the temporal assignment of the apsidiole. Dodds initially associated it with Phase B, but Trimble has noted that the mortar differs from the typical Phase B recipe.

Dodds' and Trimble's work provided a baseline for our stratigraphic analysis. The mortar markers were especially relevant, since mortars used in the floor beddings of the various phases echoed those of the wall phases. The descriptions in both reports (Dodds 1982; Trimble 1995) are reasonably similar. Mortar A, described by Dodds as a soft yellow mortar, is characterized by Trimble as a "yellow clayey soil." Dodds characterized mortar B as a hard gray mortar, consistent with Trimble's description of a hard white mortar tinged with gray. The following paragraphs present the incorporation of our research with the previous work.

Constructing and restoring the Early Church: Stratigraphic evidence from the south transept (T6SW): Our initial work in the south transept of the Early Church consisted of two profiles drawn in 2003 (Dublin 2003:17-22). These included the tile tomb discussed in the preceding section and a small baulk inside the southwest corner of the transept. This latter connected to an archival profile drawn in 1977; the two profiles are reproduced as figure 8 in our 2008 report (Dublin & Zaneri 2008:13-16). In 2008, we conducted an intensive stratigraphic and spatial study of the lower levels of the transept (Dublin & Zaneri 2008). Except for a small area in the southwest corner, the interior of the transept had been excavated below the probable floor levels (Stoddard 1978). However, the basal courses of masonry and the tile tomb structures remained in place, allowing us access to the earliest deposits inside the transept. To the south and east of the transept, standing baulks provided information on the construction of the church and on a possible ancillary building.

As noted above, the transept was founded on a surface that had accumulated after the interment of the individual in tile tomb 6A. The builders' trench associated with W83 (figure 4.10, context 12.5) was cut into this surface. Three courses of stones remained in W83. The first course was built with large, rough-cut rectangular limestone blocks in the south wall and smaller squared-off blocks in the east. Directly above this, a masonry break marked a second construction event. The upper two courses consisted of the blocky,

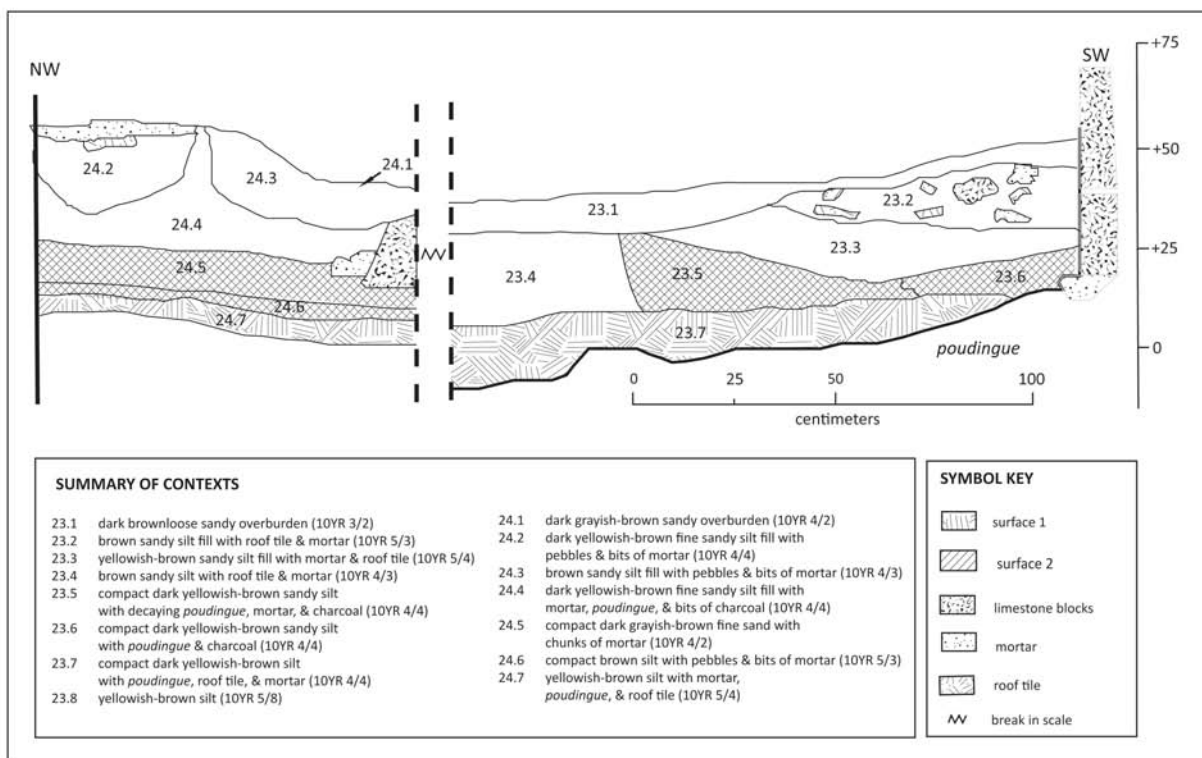
irregular stones seen in the photograph, figure 5.2. A builders' trench associated with these upper courses (figure 4.10, context 27.2) was cut down to the juncture of course 1 and course 2, level with the masonry break. The small tile tomb 6B abuts W83; unlike tile tomb 6A, it was associated with the Early Church. The location of the west wall of the transept remains unknown. However, the remains of what appears to be the rough cut face of W83 can be seen under the footings of the closing wall of the Late Church (figure 5.3). It is likely that the northward turn of the transept is probably buried under, or incorporated into that later wall.



Figure 5.2 Masonry break in W83, Early Church. (Photograph by Robert Dublin 2009)



Figure 5.3 W83 extending under closing wall. (Photograph by David Yoon 2009)



5.4 Profile, internal baulks of trench 6SW showing superposed work surfaces.

The masonry break in W83 provides evidence of a second construction event associated with the Early Church. This is supported by the stratigraphy to the east of W83, east of the south transept. Here we located two work surfaces associated with the construction and restoration of the church (figure 5.4, contexts 5 through 7). Work surface 1, directly overlying the *poudingue* and about 25 centimeters higher than the base of the foundation of W83, is associated with the initial construction. Superposed on this surface was a second compact level that was associated with the reconstruction of the church (phase B). This later surface was about 25 centimeters above the masonry break in W83. Differences in elevation between the base of the foundation and the work surfaces can be attributed to the accumulation of construction material on the work surfaces. Both strata contained chunks of mortar, *poudingue*, and roof tile consistent with building activity. The upper surface also contained lenses of charcoal, probably detritus from clean-up after the fire that destroyed Church A. Stratigraphic details can be reviewed in Dublin and Zaneri 2008:2-6.

An additional, rather enigmatic, finding in Trench 6SW is worth mentioning here. As figure 5.5 illustrates, the lower courses of W3 extension consisted of rough cut, blocky *pierres froides*, quite different from the ashlar blocks of the Late Church (Dublin and Zaneri 2008:6-8). The basal course of stones was laid vertically and on the diagonal, and a truncated builders' trench (context 26.2) cut down to the base of this course. While it is possible that these are footing courses for the later wall, it is unlikely. The base of course 1 is founded almost a meter deeper than the adjacent south end of W3, which is laid directly on the substrate. These lower courses may represent the foundation of an ancillary building south of the transept, perhaps a dormitory. Given the masonry style and the depth, this building was likely associated with the Early Church complex.

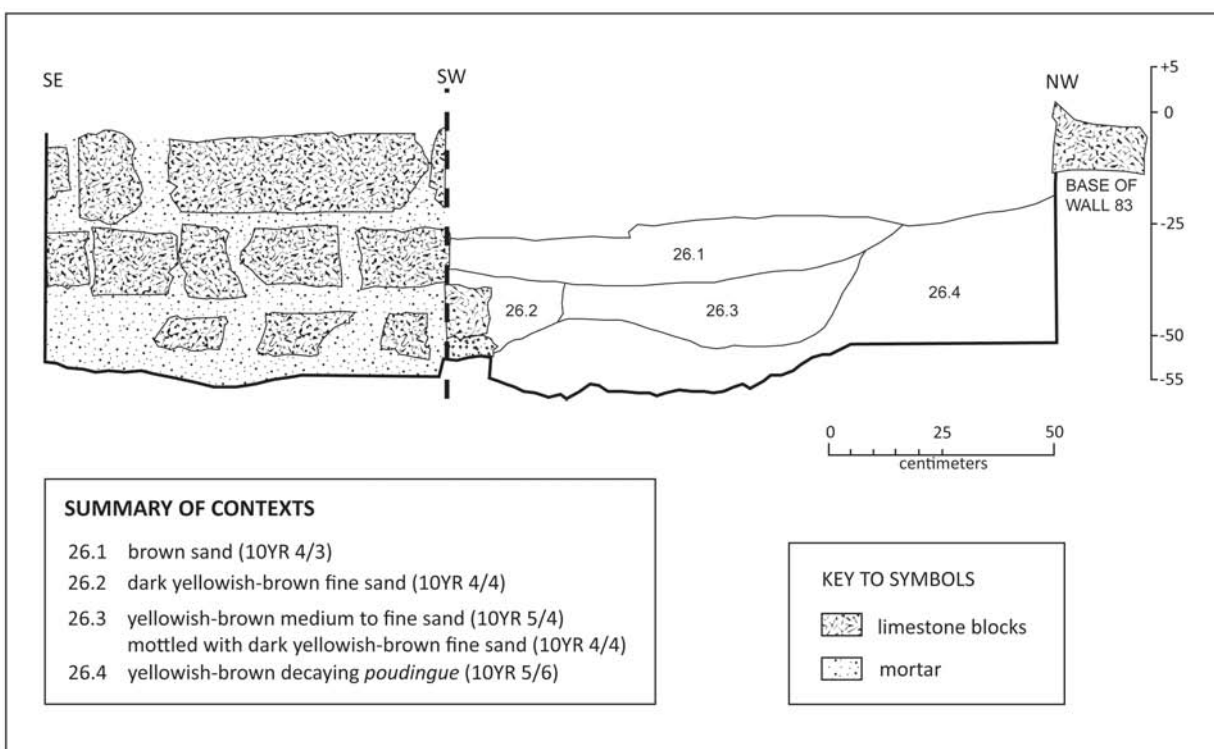


Figure 5.5 Profile, internal baulks of trench 6SW showing possible masonry break in Wall 3.

Floor bedding levels in the Early Church: With the exception of the south transept, the remains of the Early Church were not available for direct observation. Stratigraphic relationships were therefore limited by low visibility as well as a high level of post-depositional disturbance related to construction of the Late Church and cloister. Floor levels, however, could be reconstructed to some extent by reference to archival profiles in the nave (figures 5.6, 5.7) and south transept (figure 5.8), and scattered references in the field notes and

preliminary reports. In most cases, the limestone block pavement had been removed, but the remnants of underlying mortar bedding levels were used to identify floors. Table 5.2 lists these deposits.

Table 5.2 Reconstructed floor levels, Early Church.

<i>Flr</i>	<i>Elev.</i>	<i>Location</i>	<i>Description</i>	<i>Underlying stratum</i>	<i>Reference</i>
1	+43	nave	gray-beige	pre-monastic surface	Young 1989
1	+43	nave	yellow-tan mortary soil	pre-monastic surface	Lazio 1977
1	+40	central apse	beige mortar	N/A	field notes 1978
1	+43	central apse	N/A	pre-monastic surface	field notes 1989
1	+45	transepts	yellow mortar	compact brown surface	field notes 1988
1	+45	south transept	light gray & beige mortar	pre-monastic surface	Dublin & Zaneri 2008
2	+46	west addition	hard white mortar	mark on W31	Trimble 1995
2	+50	nave	hard white mortar	burn level	Young 1989
2	+58	nave	mortar	burn level	Lazio 1977
2	+51	south transept	mortar	burn level	Dublin & Zaneri 2008
2	+56	transepts	“hard Carolingian floor”	N/A	field notes 1989
3	+64	nave	yellowish-white mortar	floor 2	Lazio 1977
3	+65	nave	N/A	fill (?)	1994 field notes
3	+70	nave	yellow mortar	rubble fill	Young 1989
3	+63	choir	yellow mortar	dark brown surface, W129(?)	Young 1989
3	+60	north transept	hard mortar & gravel	silt, charcoal, mortar, W125	Young 1989

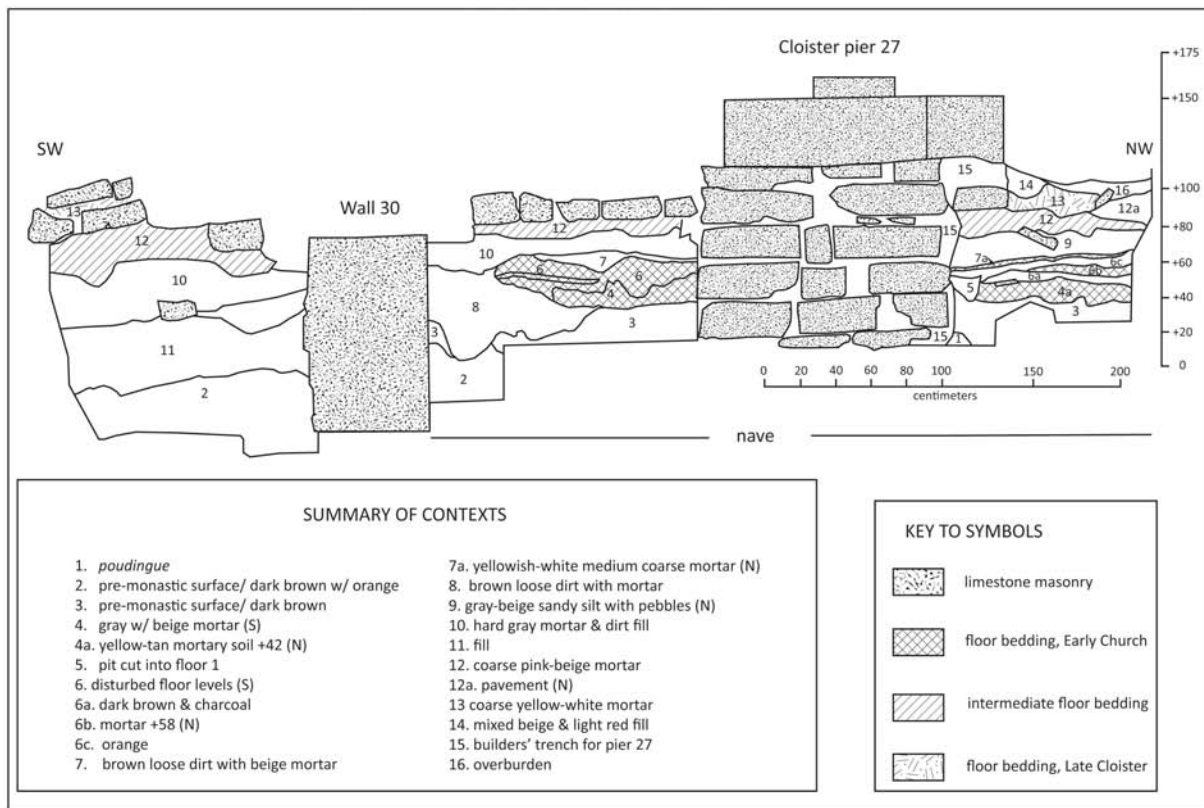


Figure 5.6 Profile, internal baulk of trench 24 showing floor levels in the nave.
(After Lazio in Stoddard 1978)

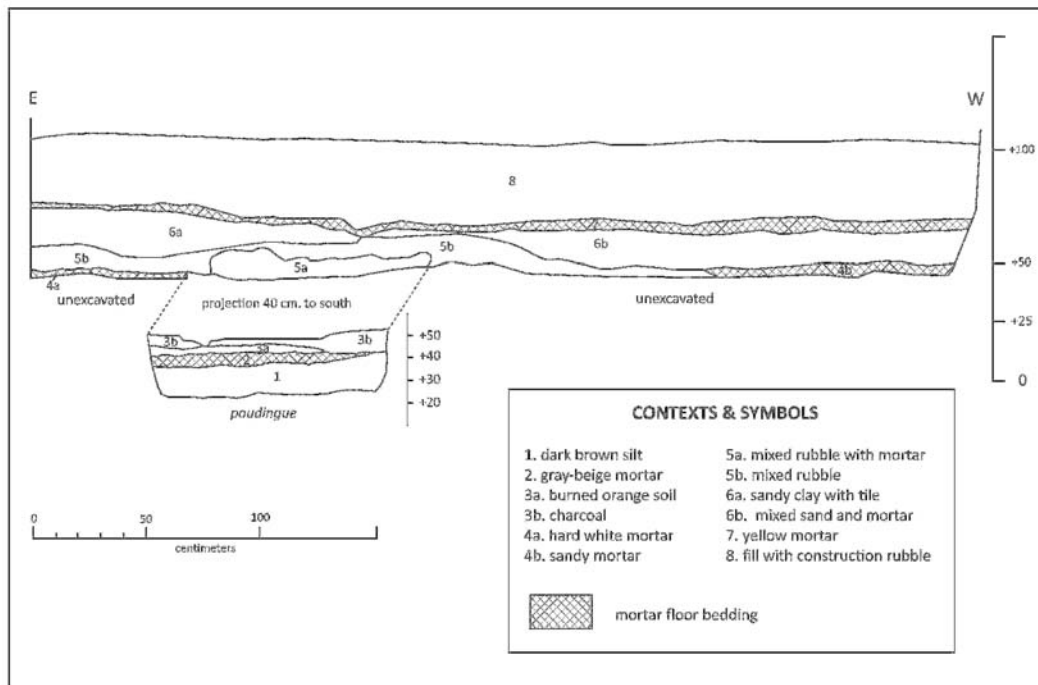


Figure 5.7 Profile, north baulk of trench 70-24 showing floor levels in the nave.
(After Young in B.W. Stoddard 1989)

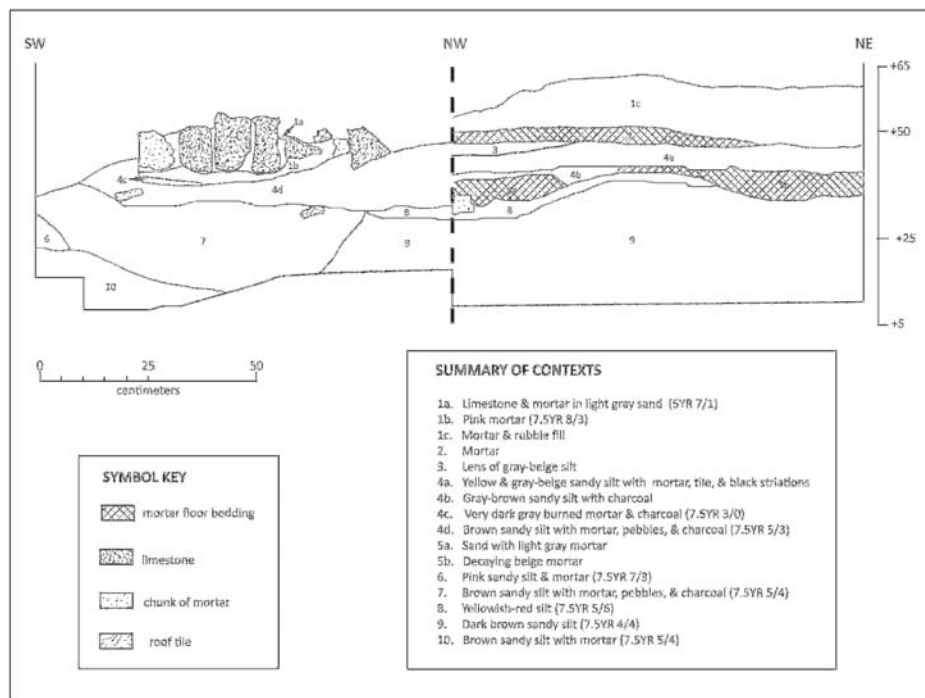


Figure 5.8 Profile, internal baulk of trench 6SW showing floor levels in the south transept.

There were three discrete floor bedding surfaces in the nave, each characterized by a unique mortar composition and stratigraphic position. Since mortar descriptions were not always included in the notes and Munsell designations were not used consistently, we tended to rely on stratigraphic position in differentiating between levels. In the nave and the south transept, floor level 1 includes context 4, figure 5.6; context 2, figure 5.7; and context 5, figure 5.8. These deposits, at a mean elevation of +42.8 cm. (range = +40-+45 cm.), ranged in color from yellow to gray-beige and directly overlay the pre-monastic surface. Floor 2, a hard white mortar at a mean elevation of +50 cm. (range = +46-+56 cm.), is shown in figures 5.6, 5.7, and 5.8 as contexts 6, 4, and 2, respectively. Floor 2 overlay deposits containing ash and charcoal (figure 5.6, context 6a; figure 5.7, context 3; and figure 5.8, context 4), the remnants of an extensive fire that extended across the Early Church and into the west and south ranges. Floor 3 is shown only in figure 5.8, context 7. This consisted of a yellowish mortar at a mean elevation of +64 cm. (range = +60-+70 cm.).

All three floor levels were not consistently present in the choir and transepts of the Early Church. In the south transept, as figure 5.8 illustrates, only floors 1 and 2 were present. Floor 2 was directly overlain by mortar and rubble fill associated with the construction of the Late Church circa 1175 C.E. In the choir and north transept, the stratigraphy is confusing and difficult to interpret. This is due in part to the presence of rather obscure pre-monastic remains and in part to post-depositional disturbance associated with the construction of the Late Church. Archival profiles across trench 99 (figures 5.9 and 5.10) show what is apparently a single floor level that corresponds roughly to floor 3. In the north transept (figure 5.9, context 6) a compact mortar and gravel surface at an elevation of +60 cm. overlay the remains of pre-monastic activity (Stoddard et al. 1989:6). The surface was described only as “very hard” and interleaved with layers of gravel. In figure 5.10, where the profile would adjoin figure 5.9, a level of yellow mortar was identified at an elevation of +60 cm. This surface overlay the dark brown pre-monastic surface and apparent pre-monastic deposits. It underlay the white mortar floor bedding of the Late Church (Stoddard et al. 1989:14-16). The stratigraphic position would thereby place floor 3 in the choir and north transept in a period between Early Church A and the construction of the Late Church. Lower floor levels were not identified in this area, although they are present in the south transept. This disconformity is impossible to explain given the current data.

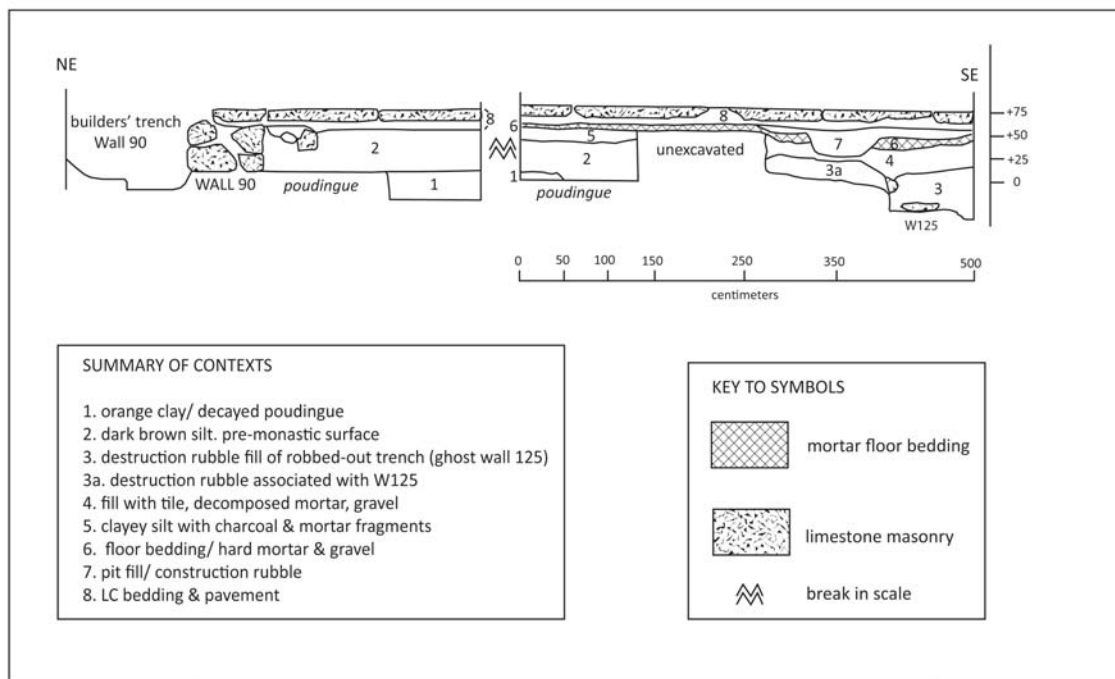


Figure 5.9 Profile inside the north transept of the Early Church
(After Young in B.W. Stoddard et al. 1989).

The spatial distribution of Early Church floor levels sheds some light on the question of side aisles. Floors 1 and 2 appear to be confined to the south transept and the nave, which leads us to the conclusion that there were no side aisles during phases A and B. A comparison of the interior and exterior stratigraphy south of W30 supports this conclusion (see figure 5.6). Depositional histories north and south of that wall differ significantly. While all three floor levels are present to the north, presumably the interior of the church, the area on the south was distinguished by the presence of two fills (figure 5.6, contexts 10 and 11). The earlier (context 11) was deposited directly on the pre-monastic surface. It sloped downward toward the south, much as one might expect of a ground surface outside the building. The upper, later deposit, context 10, appears to be related to the demolition of the nave (see below, chapter 6). Southwest of the nave, Trimble (1995:8) identified several scraps of floor bedding. It is highly unlikely, however, in view of the stratigraphy further east. A more parsimonious explanation is that the floor remnants southwest of the church were the remains of the floor(s) of an ancillary structure associated with walls 48 and 49. Carved sculpture characteristic of a Romanesque style cloister exists at Psalmodi, although not *in situ* (Riorden and Tillman 2011:4), and W48 and 49 apparently date to the period of the Early Church (Trimble 1995:11). It is quite possible that the floor fragments are the remains of a cloister associated with the Early Church, but the evidence is scant and hard to interpret.

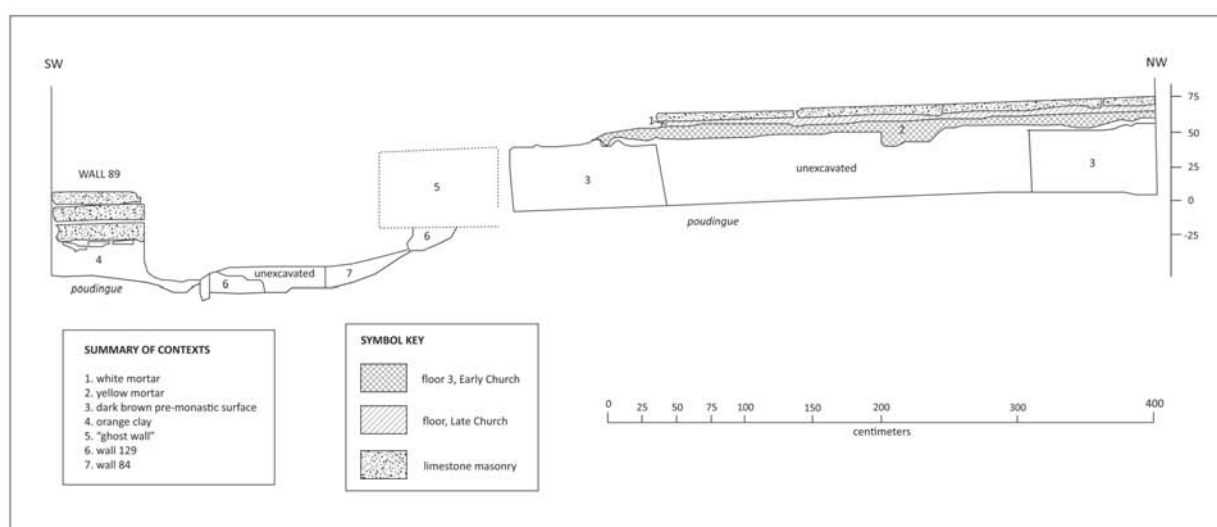


Figure 5.10 Profile inside the choir of the Early Church, showing the superposition of floor 3 and the floor of the Late Church. (After Young in B.W. Stoddard et al. 1989)

The picture to the north of W26b, the presumed north wall of the nave, is somewhat unclear. Figure 5.11 shows the stratigraphic relationships in two separate profiles of trenches 24 and 73. The profiles have been scaled to each other and placed in identical vertical planes to facilitate comparison. Trench 24 is south of W26a, or "inside" the nave, while trench 73 is north of the wall and thus "outside" the presumed line of the nave. In trench 73, a level of "grainy yellow mortar" (context 73.8) directly overlay a rubble and mortar fill that had been deposited on the pre-monastic surface. There are no lower mortar levels that might correspond to earlier floors. Context 73.8 overlay the builders' trench for W26, suggesting an association with that wall. It was cut by the builders' trench associated with the upper wall 26 in the north gallery of the Late Cloister. Thus, the stratigraphic position would place the floor installation after the construction of W26b and before the construction of the Late Cloister, a period that may span as long as 500 years. The mortar description and elevation (+70 cm.) correspond to Early Church floor 3, making it a plausible candidate for a phase C north aisle. This, however, seems unlikely, given the apparent structural configuration in this area, specifically the absence of a viable candidate for the north wall of a putative north aisle. This surface could have served as bedding for an exterior pavement installed late in the Early Church sequence, or it could have been installed

during the construction of the Late Church. In the absence of an absolute date based on radiocarbon or constituent mortar analysis, it is impossible to draw any conclusion as to the placement of this surface.

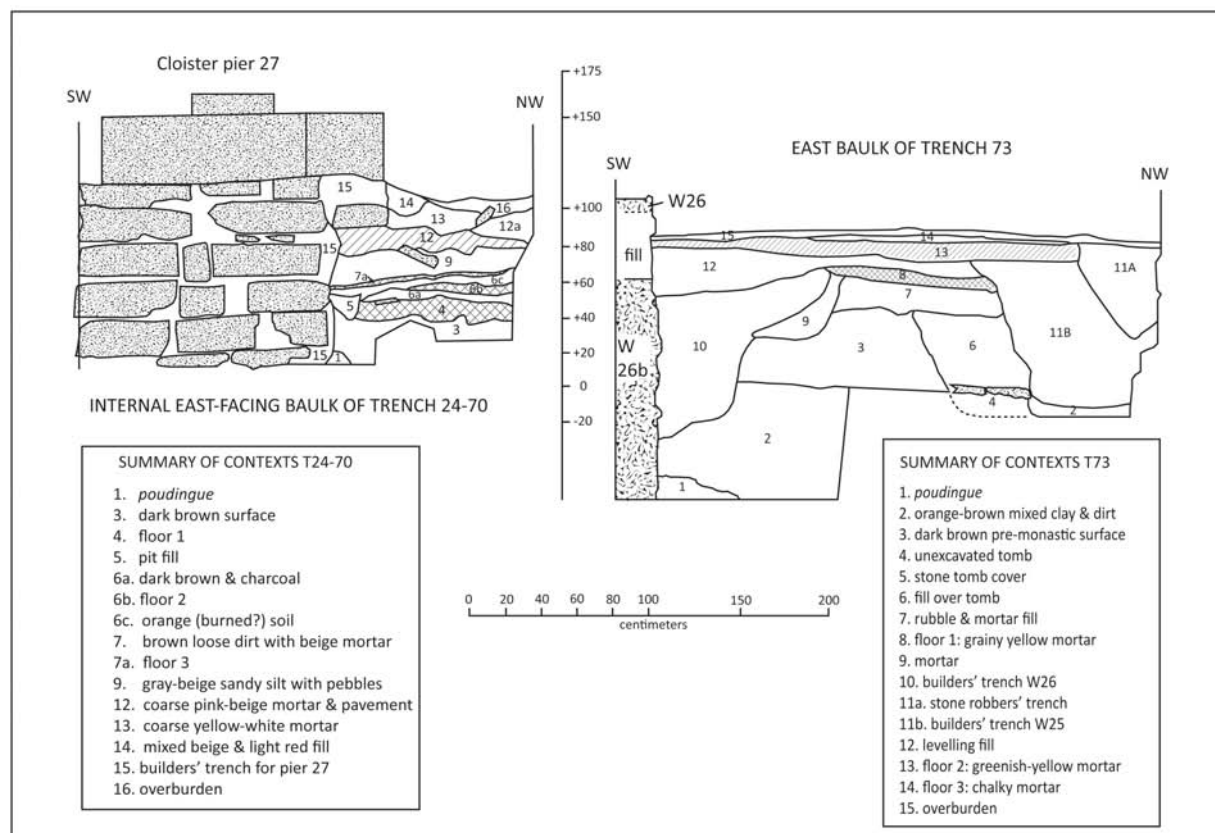


Figure 5.11 Profiles showing the relationship of floor bedding strata inside and outside the early nave.
(After Lazio in Stoddard 1978; Young in Stoddard 1983)



Figure 5.12 The narthex at St.-André de Souvignargues.
(Photograph by David Yoon 2011)

The western extension: The large extension to the south of the Early Church was constructed during phase B (Trimble 1995). Trimble also identified a hard white mortar floor bedding level at about +46 cm., consistent with floor 2. The function of this addition is not known. It was initially thought to be a tower, but subsequent investigation revealed that the foundations, at a depth of about 20 centimeters, were most likely too shallow to have supported high, massive walls (Yoon et al. 2001:7). The walls were about 1.5 meters thick, almost twice as thick as W30 in the nave, and the interior dimensions,

five meters by nine meters, rivaled those of the nave (six by ten meters). In other words, the addition nearly doubled the size of the nave and was more massively constructed, suggesting that its visibility on the

monastic landscape was significant. Since it was probably not a tower, what was it? The available data do not provide an answer, but the location suggests that it may have served as a narthex, similar to those seen at several of Psalmodi's priories. Figure 5.12 is a view of the narthex at the priory church of Saint-Andre de Souvignargues. The dimensions and construction are reminiscent of Psalmodi's western extension.

Discussion: The stratigraphic study yielded several important findings, although questions remain. Our study has addressed these questions with some success, some surprises, and some conjectures. In general, our work supports hypotheses raised during the earlier research and clarifies three major points. First, the stratigraphy, especially the floor data, confirmed the presence of three (rather than two) building campaigns (also see Trimble 1995). The first and second events were separated by an extensive fire that apparently damaged the entire church as well as structures in the west and south ranges. Second, there is no secure stratigraphic evidence for side aisles at any point in the history of the Early Church. And finally, based on the shallow foundations of the western extension, we would reject the hypothesis of a tower at the west end of the church (also see Yoon et al. 2001).

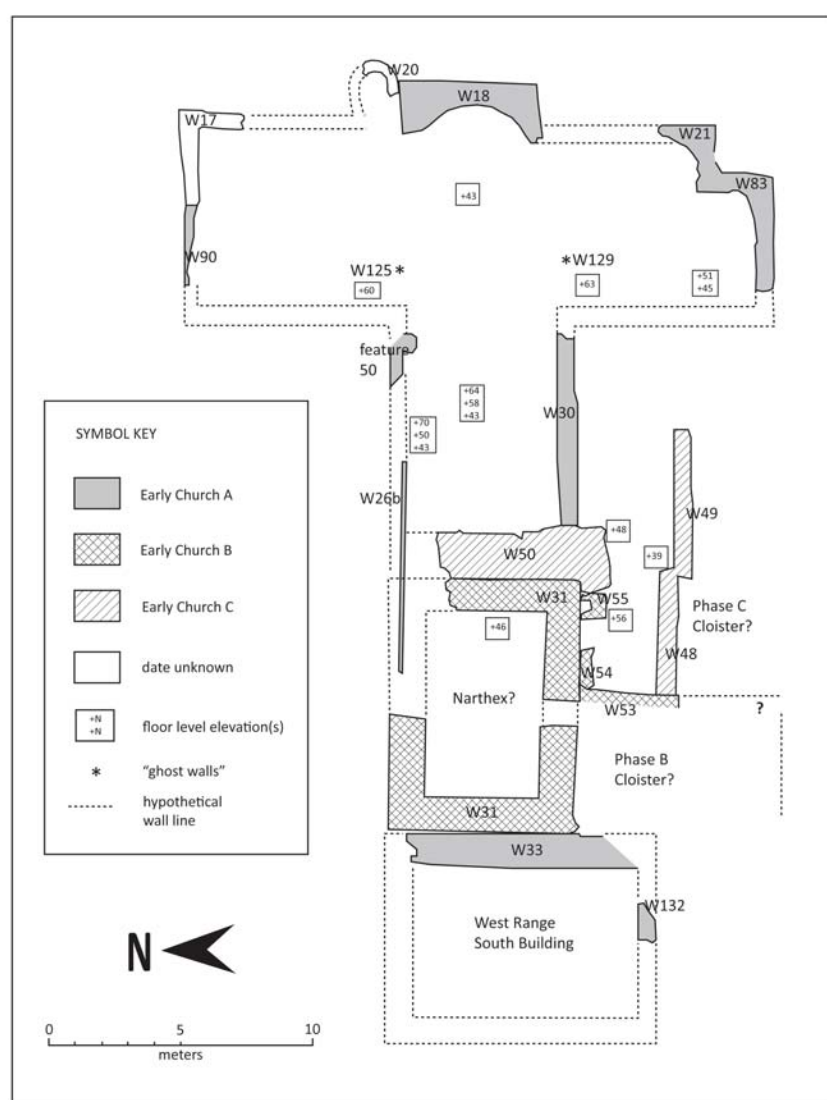


Figure 5.13 Early Church Phases A through C. (Based on Trimble 1995).

The plan view, figure 5.13, draws from the stratigraphic relationships found in this study and from previous research, primarily Trimble (1995). The available data on floor levels conform rather well to the wall data previously compiled. The slight variability in mortar descriptions, basically a conflation of yellows and beiges, can be attributed to the subjectivity of the various observers. Based on the floor evidence, the building extended from W30 on the south to W26a on the north. W26 was constructed in two phases separated by a 35 centimeter thick layer of rubble fill (Bauman 2002). The earlier phase, designated W26a in this report, was cut into the substrate and rose to a height of +62 cm., slightly lower than the level of floor 3 inside the nave. The upper courses were apparently demolished, covered with fill, and replaced by an ashlar block wall, W26, which defined the north wall of the Late Cloister. As both the masonry and the stratigraphic position attest, the later wall 26 post-dated the Early Church. The location of the west end of the nave remains ambiguous. As Trimble (1995:3) suggested, it is probably buried in or under W50. During phase B, a western extension, perhaps a narthex, was added, extending the church westward. The function of the massive W50 is not clear. Again as Trimble (1995:5) suggested, this wall and the adjoining buttress (W52) may have been built to reinforce and stabilize the building. As noted above, there is some sculptural evidence for a late Romanesque cloister, but there are no corresponding walls or floors that can be securely associated with such a structure. At present, the best candidates are W48/49, attributed to EC-B (Trimble 1995:11). This would place the cloister south of the church, in part of the area that housed the later cloister.

The outstanding question remains one of absolute dates for the initial church and the subsequent construction campaigns. Unfortunately, stratigraphy studied in isolation can only establish a relative chronological sequence. As of this writing, we do not have the ceramic associations or other analyses that would provide us with absolute dates, so these remain archaeologically ambiguous. The documentary record could be useful in assigning absolute dates, but its limitations need to be understood. The documents are scanty, and some were written considerably later than the supposed time of the events they record. Also, there is a Languedocienne tradition of legendary and in some cases fraudulent accounts of monastic foundations (Remensnyder 1995), which would cast doubt on any recorded histories of the period.

The fourteenth-century *Chronicle of Uzès* offers a 783 C.E. date for the founding of the abbey. Although one might quibble about the veracity of a document written 600 years after the event, the date is in keeping with records of a flurry of donations to the abbey in the late eighth and early ninth centuries and with accounts of its abandonment in the tenth century. As Dodds (1986) so aptly points out, in order to be abandoned, the church must have been in existence before the tenth century. This gives us an initial construction date sometime between the end of the eighth century and the beginning of the tenth. It is tempting to think that the evidence of fire damage in the archaeological record is associated with the historic accounts of Saracen raiding and the temporary abandonment of the abbey. In that case, the phase B reconstruction would have occurred around the time of or prior to the documented 1004 rededication. Dodds (1986:16) has noted that the Latin phrase in the documents (*reaedificandum et reparandum*) refers specifically to rebuilding and restoration. The third campaign preceded the onset of construction for the Late Church. This is clear in the stratigraphic superposition of the Early Church-C and Late Church floors in the choir and north transept. This would theoretically place the third construction campaign during the late eleventh to the early twelfth century, more or less at the height of the Psalmodi/ Saint-Victor dispute. Given the feasibility of violence during this period (Remensnyder 1995:263ff.), it is possible that phase C, like phase B, signified repairs to a damaged church (also see Trimble 1995:5).

One area that could use additional scrutiny is the relationship of the Early Church to the pre-monastic settlement. The initial research in the choir and north transept of the church revealed a number of “ghost walls” under the Early Church floor levels (Stoddard et al. 1989:13-18). These consisted of trenches or masonry fragments that appear to be remains of dismantled structural elements. On brief examination of two of these features (walls 125 and 129), we noted that they align with the walls of the nave and central apse (see figure 5.13). This raises the question whether the nave and central apse were elements of an earlier church that was transformed by the addition of the two large transepts. More intensive study of the existing field notes and wall alignments, as well as historical research on the structure and configuration of earlier churches in the area, could be useful in addressing this problem. Although it is ancillary to this report at this time, it remains an important question.

6. THE LATE CHURCH

The construction of the Late Church transformed the sacred landscape, resulting in a quasi-urban built environment dominated by the monumental architecture of the Gothic-style church. The core of the church was built on the sloping ground to the east of the Early Church. This relatively undeveloped area, extending across the early cemetery, would have been the most feasible construction site, given the existing built environment and the traditional Christian stipulation that the high altar be to the east. The builders compensated for the slope by filling, also raising the floor level to the height of the early nave, which was retained during the first phase of construction. Considering the generally low lie of the land, there may also have been a practical need to raise floor elevations to protect against flood or seepage.

The architectural style of the Late Church places the onset of construction during the late twelfth century (Borg 1971; Dodds et al. 1989; Riorden & Tillman 2011; Zaneri 2012). This was a long-term project, perhaps continuing for the better part of a century. The new church was likely imagined and planned as a basilica; if completed, it would have measured approximately thirty-five meters by seventy meters, with a central nave and two side aisles. Extrapolating from the juxtaposition of the Early and Late Churches, it is clear that the builders used the Early Church as a template (Zaneri 2012:15). The center apse of the Late Church was aligned with the center apse of the earlier, creating continuity between the two structures. The exterior walls enveloped the remnants of the older transepts and apses, which were demolished during the initial phase of construction. This initial phase laid out the eastern half of the church, while retaining public space and historical continuity in the form of the early nave. A second building campaign reconfigured the sacred precinct, closing off the church and adding a forecourt to the west of the closing wall. This chapter addresses the stratigraphy and construction sequence, and is temporally organized. The locations of the profiles and plans used in our analysis are presented on the plan view, figure 6.1.

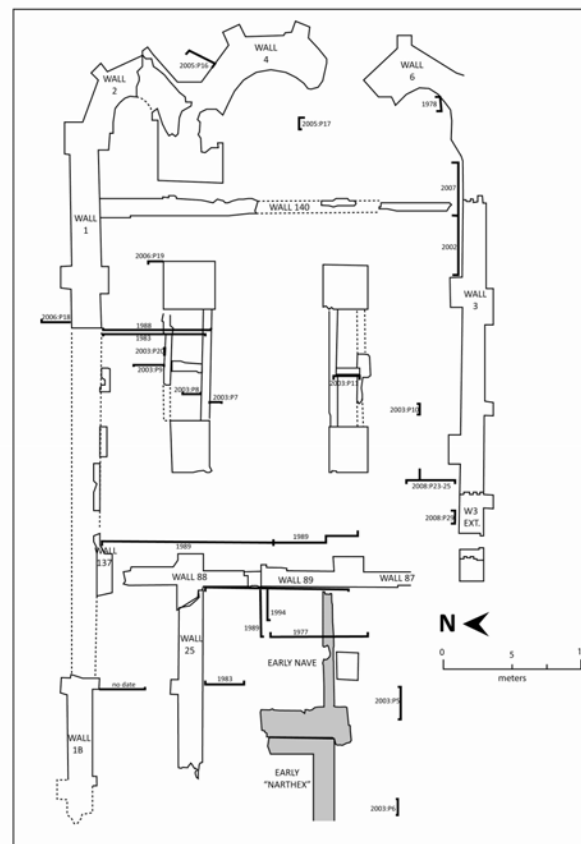


Figure 6.1 Drawings used in the stratigraphic analysis of the Late Church.

Phase A construction – apses and exterior walls: Archaeological deposits and features associated with this construction phase include a work surface outside the center apse; the center and south apses and the south wall; rubble levels derived from the demolition of the earlier transepts and apses; fill deposits; and the two choirs. Unfortunately, there is very little stratigraphic information on the north apse or the north wall.

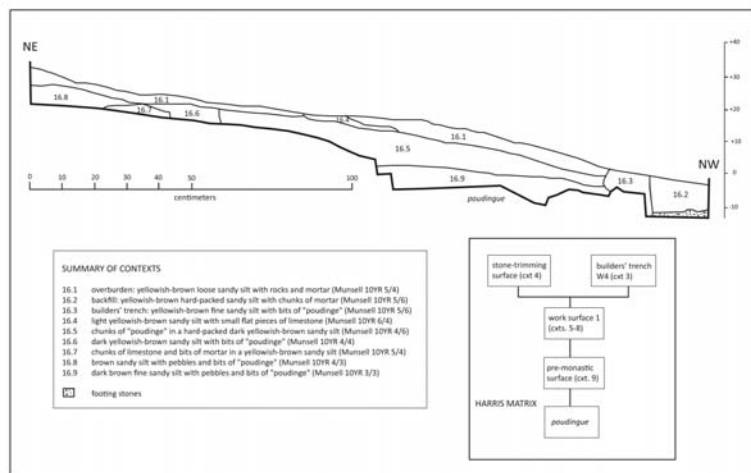
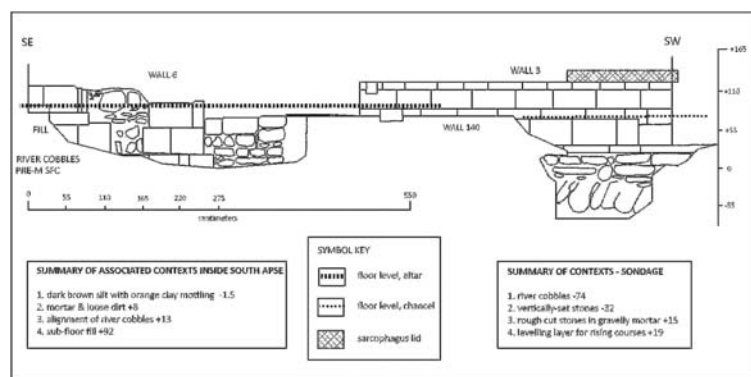


Figure 6.2 Profile, work surface east of center apse, Late Church.

the presence of chunky debris, while the upper (context 16.4) contained a quantity of small, flat limestone chips. Apparently, rough stone finishing was done on-site, producing the larger debris, while later fine trimming yielded debitage in the form of small flat pieces of limestone. The builders' trench for the apse (context 16.3) was cut through the work surface and pre-monastic ground level into the substrate, demonstrating that the construction of the apse was the earliest building activity in this area of the site.



6.3 Elevation drawing, walls 3 and 6, Late Church.

perhaps some additional questions) on techniques and sequence.

The east end of W3 was founded very deeply on an elaborate substructure. An apparently basal level of river cobbles and mortar was overlain by large stone blocks set almost vertically. These in turn were capped by two courses of rough cut, horizontally-set stones and an overlying layer of leveling fill directly under the ashlar rising courses. In total, the foundation was cut down almost a meter, from the base of the rising courses at +20 centimeters to the surface of the cobble level at -74 centimeters. The use of vertically-set blocks is seen elsewhere on the site – as a component of the sub-floor fill in the north choir and the southwest corner of the Late Church, and as the base of the foundation of the closing wall (W89). In the case of W3, we do not know how far west they extended, nor do we know whether the foundation of the south apse was similarly elaborate.

There was no foundation at the west end of W3; the rising courses were simply mortared onto the substrate, as figure 5.4 illustrates. Why the difference in construction at the east and west ends of the same wall? It may simply have been a builders' shortcut (Riorden personal communication 2008). Or it may reflect an expedient strategy, with foundation depths and construction techniques conforming to the eastward slope of the land and the relative depth of the substrate. The substrate is apparently considerably lower at the east end of W3 than at the west, contributing to the possibility of water seepage and increased dampness, thereby requiring a substantial underpinning to guard against shifting. On the other hand, it may infer the presence of an older standing structure at the western termination of W3, a possibility that we raise in the previous chapter. If this were the case, horizontal and vertical stresses on the new wall would be absorbed by the presence of the abutted older wall, thus obviating the need for a substantial foundation. It could also explain why W3 was terminated six meters short of the juncture between the Late Church and the early nave.

The stratigraphic coverage inside the south apse is insufficient to draw any reasonably firm conclusions, but the 1978 profile raises some interesting questions. Although the base of the apse foundation was not reached, it clearly extended through the pre-monastic surface and probably into the *poudingue*. The elevation drawing shows alternating columns of rough cut and ashlar blocks. What is most intriguing, however, is the presence of a course of river cobbles slightly above the pre-monastic surface and slightly below the beginning of the rising courses. The stratigraphic position raises the question whether this apparently make-shift pavement represents a work surface associated with the construction of the apse. Unfortunately the contextual information required to address this question is not available. The feature is overlain by eighty centimeters of fill under the floor of the altar.

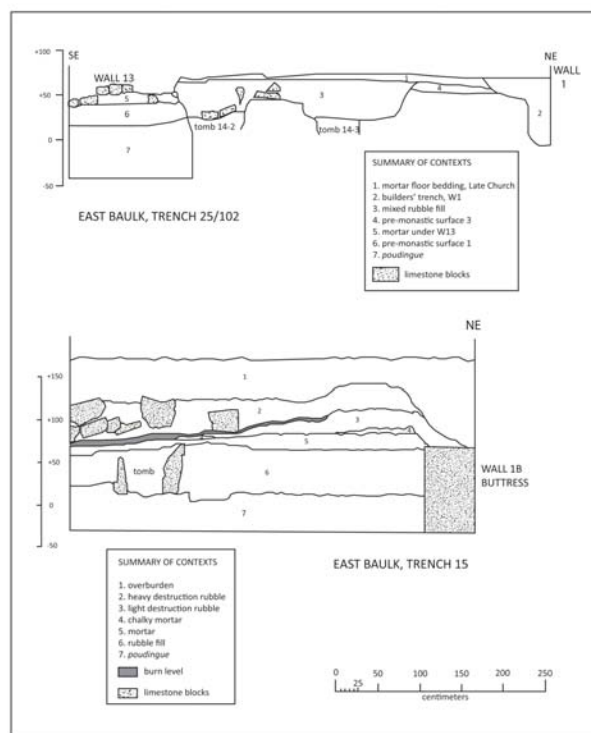


Figure 6.4 Comparative stratigraphy south of Walls 1 and 1B. (after Young in B.W. Stoddard 1989)

Phase A construction – the problem of the “north aisle:”

There is very little stratigraphic information on the north wall of the Late Church (W1). Much of the wall was robbed out, leaving three unconnected segments as shown in figure 6.1. These segments were initially thought to form the planned north wall of a long aisle for the Late Church. On reconsideration, it appears that what seemed to be a continuous wall was built in at least two sections at different points in the construction sequence. The walls are misaligned. The offset between walls 1B and 35 is greater than the offset between walls 1 and 1B, suggesting that the westernmost extension was built separately, probably as a unit across the west end. It is not clear whether walls 1 and 1B were built as a unit; the offset is slight, and W1B is slightly narrower than W1. The stratigraphy inside the two walls is inconclusive; however, a comparison of the levels associated with W1 and W1B does indicate some similarity, as figure 6.4 illustrates. The floors and substrate are at similar elevations, and these two levels are separated by about 40 centimeters of rubble fill. The comparison is complicated by the presence of the pre-monastic levels in trench 25/102 and by a dearth of information on the matrices and inclusions in the fills.

At this point, a two-section hypothesis (W1/1B and W1C/35) seems to be the most parsimonious explanation of the existing evidence. If so, the original plan may have been to build the Late Church as far as the west end of the earlier one with a north and a south aisle on each side of the choirs. Following this line of thought, the north wall would have been built to the existing western terminus of W1b during the first construction phase, while the south wall was built westward to the supposedly standing early structures.

Phase A construction – demolition and filling: The transepts and apses of the Early Church were torn down during this construction phase, and the resulting rubble was probably incorporated into the fill under the floors of the Late Church. Stratigraphic and spatial information on these processes are both direct and indirect. The direct evidence includes the elevations and break-off points of the walls of the Early Church, listed in table 6.1, and the stratigraphy of trench 99 inside the early transept, figure 6.5.

Table 6.1 Surviving elevations and break-off points of the walls of the Early Church.

Wall number	Description	Highest elevation	Wall broken off at ...
17	north transept	+65	pier W9
20	apsidiole	+63	pier W9
18	center apse	+70	pier W10
21/83	south transept	+64	pier W10
30	south wall, nave	+96 ¹	closing wall W89
50/52	west of nave	+82 ¹	W26b, Late Cloister
31/97/98	narthex	+97 ¹	W26b, Late Cloister
26b	north wall, nave (?)	+62	overlain by fill to +98.5 cm., W26b

NOTES:

¹The elevations listed are the surviving high points of the Early Church walls west of the closing wall.

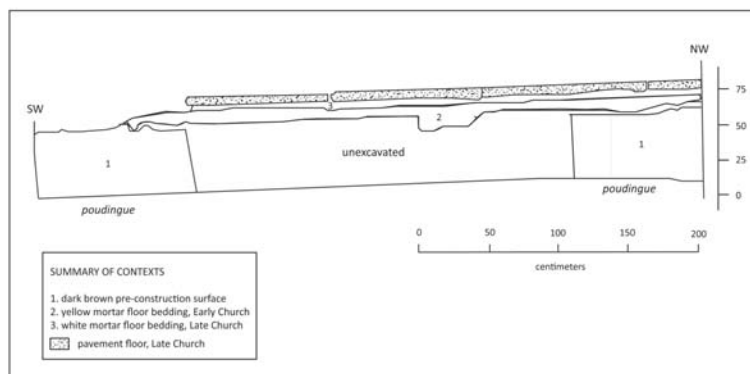


Figure 6.5 East baulk of Trench 99, showing superimposed floor bedding levels. (After Young in B.W. Stoddard 1989).

The walls of the early transepts and apses are broken off at the piers of the Late Church, and they survive only to elevations below the level of the floor bedding for the Late Church. Clearly, this section of the Early Church was demolished when the Late Church was built. Figure 6.5 shows the superposed floor bedding levels of both churches overlain by the pavement of the Late Church. The bedding levels are distinguished by the different mortar colors or recipes – the yellow mortar of Early Church-C underlying the white mortar of the Late Church. The

walls of the nave and the “narthex,” on the other hand, survive to elevations that are consistently higher than the floors of the Late Church, indicating that this section of the earlier church remained in place during the initial construction phase.

Rubble from the demolition of the transepts and apses would have provided a ready source of fill to level the construction surface and elevate the floors of the Late Church. Table 6.2 provides a description of the sub-floor fill recorded as part of our stratigraphic research. Fill deposits were easily identified by a high density of construction rubble (crumbled and chunky mortar and chunks of building stone, *poudingue*, and roof tile) and a coarse sandy texture. Soil matrices were predominantly brown to yellowish-brown in color, although deposits containing especially high mortar concentrations were often whitish, light brown, or pink. *Termini post quem* on redeposited pottery found in the fill range from circa 350 to 1250 C.E. (figure 6.6, contexts 10.12 and 10.1), with the majority of dates falling into the Late Ancient to Early Medieval time frames.

Since the pre-existing surface sloped down to east and since the early nave was to remain in place as part of an interim church, it was necessary to level the construction surface and to bring the floor of the new church up to the level of the early nave. A relatively high floor level may also have mitigated any danger of flooding or seepage inside the church. The fill ranged from 20 to 80 centimeters in thickness, and there was significantly more fill in the apses, which were built on a relatively low surface and supported a relatively high

floor level. In the south choir, the fill deposits directly overlay the pre-monastic surface, representing the earliest building activity in this area of the site. There was little to no fill in the west end of the church or under the north choir where construction levels rested on higher pre-monastic and Early Church levels.

Table 6.2 Description of sub-floor fill deposits inside the Late Church.

Tr #	Location	Soil description	Elevations	Reference
5	center apse	light yellowish-brown sandy silt with mortar & limestone (10YR 6/4)	+13 - +92	Dublin 2006
3	south apse	pale brown sandy silt with mortar, limestone, & roof tiles (10YR 7/4)	+13 - +95	field notes Broda 1978
1/6	south choir	mortar, loose dirt, stone rubble mix of pinkish-gray sandy mortar & light to dark brown sandy silt with rubble (7.5YR 4/3, 5/3, 5/4, 6/3, 6/4, 7/2, 7/4)	+14 - +56	Dublin 2003
1/6	south choir	mix of brown, light brown, & pinkish-gray sandy silt with mortar & stone rubble (7.5YR 5/3, 6/3, 6/4, 7/2, 8/2, 8/3, 8/4)	+22 - +60	Dublin 2003
6	south choir	brown to dark yellowish-brown sandy silt with mortar & rubble (10YR 4/3, 4/4, 5/3, 5/4)	+19 - +50	Dublin & Zaneri 2009
102	north choir	mortar with vertical limestone blocks; crumbly white mortar (10YR 8/1); dark yellowish-brown sandy silt with bits of mortar (10YR 4/3)	+48 - 100	Dublin 2003
25	north choir	rubble	+45 - +65	Young 1989

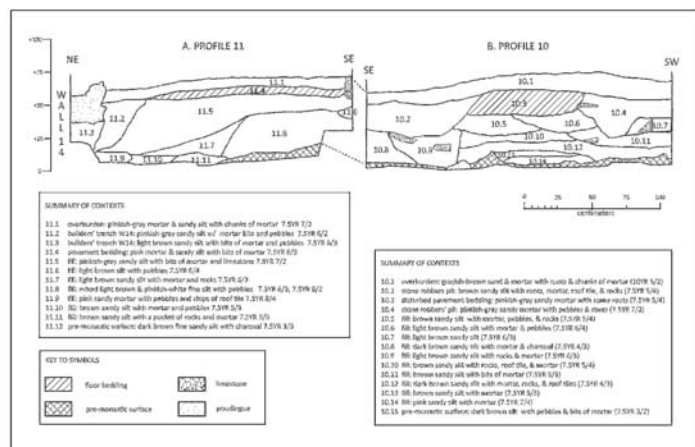


Figure 6.6 Profiles, Trench 1/6 inside the south choir.

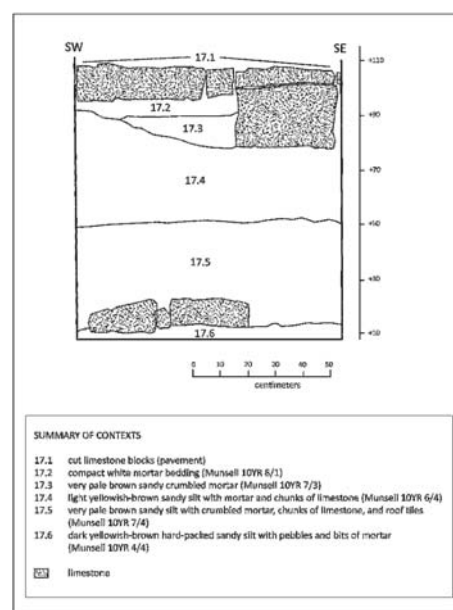
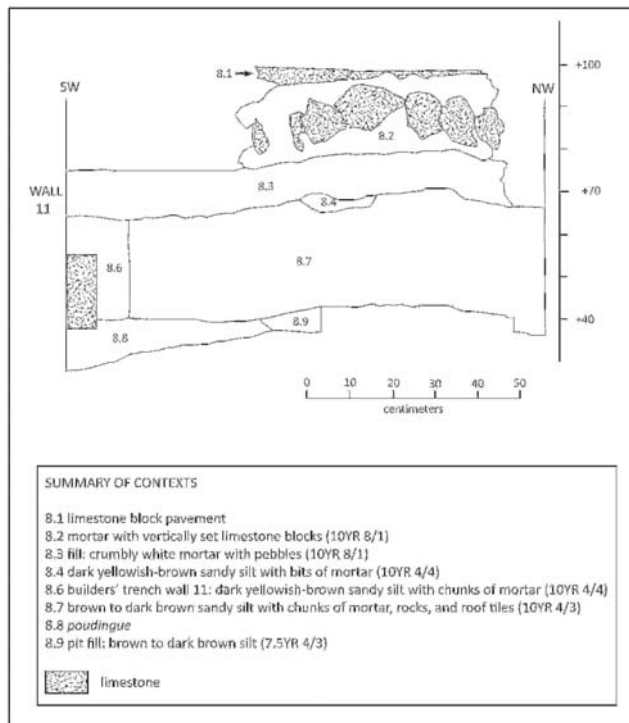


Figure 6.7 South-facing baulk, Trench 92

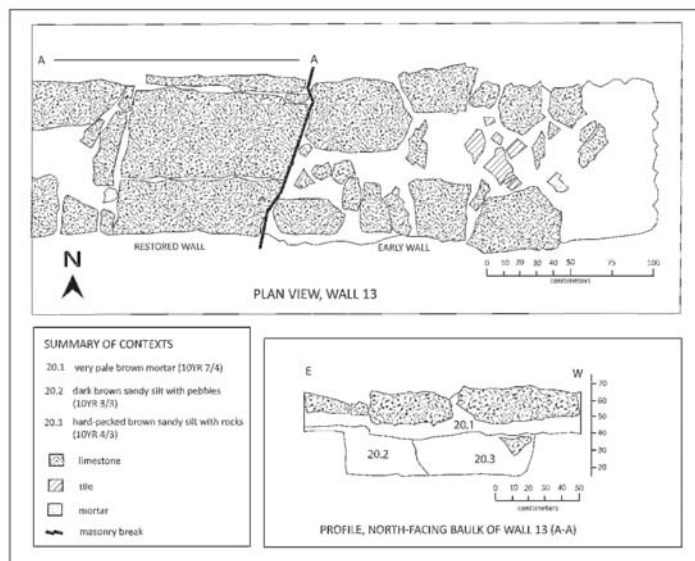
Techniques of fill deposition varied, as shown in figures 6.6, which shows fill levels in the south choir, and figure 6.7, fill levels in the center apse. These techniques are visible in the size and morphology of the deposits, as well as differences in the matrices and the content and density of inclusions. Some fill deposits appear as thick, even levels (for example, contexts 11.5-8 in figure 6.6, and 17.4 and 17.5 in figure 6.7), while others consist of chunky deposits reminiscent of barrow or basket loads (see contexts 10.5 and 10.6 in figure 6.6). In some cases, the smaller deposits were apparently dumped in place, while in other cases, the basket loads were spread across a space, appearing in profile as a narrow deposit. An example of this would be contexts 10.10-12 in figure 6.6. The volume of fill in the apses was significantly greater than that in the south choir. Each fill deposit shown in figure 6.7 was about 40 centimeters thick, consisting almost entirely of crumbled mortar mixed with large chunks of limestone. The surfaces were relatively flat and. There was no evidence of the smaller basket loads that are seen in the south choir. Similar filling was seen under the second



level of the north choir (figure 6.8). Here, a level of crumbled mortar underlay a second deposit of mortar with vertically set stones. The process of filling in these areas would have required additional steps in the labor process to move quantities of relatively heavy material and to level it off in place. Also, greater volumes of fill needed to be contained so that the soil would not shift. In the apses, this containment was probably provided by the exterior walls, which were clearly in place before the fill was deposited.

Figure 6.8 Internal east-facing baulk of trench 102, north choir.

Phase A construction – interior features and floor levels: There is very little stratigraphic information on the crossing piers, or on W140, which separated the altars from the chancel. The two choir stalls, however, were built during this first campaign. The choirs, mirror images of each other, were rectangular enclosures approximately 2.5 meters wide by 7.5 meters long. They were bisected along the north-south axis, creating two stalls. Although five of the six stringer walls that composed the choir were built at the same time, the sixth (W13) is a surviving early wall that was refurbished to serve as the north wall of the north choir.



As figure 6.9 illustrates, the eastern half of the wall was rebuilt in the rubble core construction typical of the Late Church, while the western half contained the larger, rough-cut stones of the earlier construction. Re-pointing with a pale brown mortar is apparent at the base of the wall and between the new stones. As illustrated in figures 6.6A and 6.8, the floor level in the south choir was at about +75 cm., while that in the north choir was at about +105 cm. (Dublin 2003). It is likely that the north choir contained two floor levels, although we cannot corroborate this as any remains of a lower floor have not survived.

Figure 6.9 Plan view and profile of W13, showing masonry break.

Table 6.3 lists the elevations and locations of floor bedding and pavement levels across the Late Church. Floor construction did not vary much from the techniques used in the Early Church. A mortar bedding level was laid and the limestone paving blocks were set in this bedding. Variability in the elevations of the pavement inside the south apse is due to settling. The floor of the main altar was at least twelve centimeters higher than the floor of the side altar in the south apse, and would have required two or three steps to navigate from one area to the other. The floor of the chancel would have been about 30 centimeters lower than the floor of the high altar. These two areas would have been separated by about four or five steps. W140 extends across the width of the church between the apses and the choirs, but remnants of steps were not found.

Table 6.3 Floor levels, Late Church.

Trench	Location	Elevation	Description
92	center apse	+96/+107	compact white mortar bedding (10YR 8/1); cut limestone blocks
3	south apse	+81 - +95 ¹	cut limestone blocks
3	chancel	+61 ¹	cut limestone blocks
1/6	south choir	+60	ext 10.3 pinkish-gray sandy mortar with some roots (7.5YR 5/4)
1/6	south choir	+60	ext 11.4 pink mortar & sandy silt with bits of mortar 7.5YR 8/3
6	south choir	+60	profile 24 mortar floor bedding
102	north choir	+104	ext 8.1 cut limestone blocks
99	west end	+77 ¹	cut limestone blocks

NOTES:

¹Elevations taken from site map (Riorden and Tillman 2011).

Second building campaign (circa 1300): A second phase of construction altered the planned footprint of the church and reconfigured the space between the church and the west range. The (re)construction of a closing wall defined the western end of the church, and an extension to W3 closed off the south. This created a fully-enclosed structure that included monastic and perhaps public space. The old nave was demolished and replaced by two newly-defined spaces – a long, narrow north building and an apparently unenclosed pavement or forecourt west of the church. Associated stratigraphic units include the closing wall (W87- 89; W137); the south wall extension W3ext.); rubble fills derived from the demolition of the nave; the western continuation of W1 (W35); and a floor bedding level and pavement over the ruins of the Early Church.

Phase B construction – closing wall and south wall extension: Apparently built after the early nave was demolished, the closing wall defined the west face of the Late Church. Masonry breaks within the fabric of the wall indicate that it was constructed in several sections (Dodds 1986:10; Stoddard et al 1989:13; Zaneri 2012), and thus assigned separate number designations (W87, 88, 89, 137). Associated sculpture places the construction of at least some sections circa 1300 C.E. (Yoon personal communication 2012).

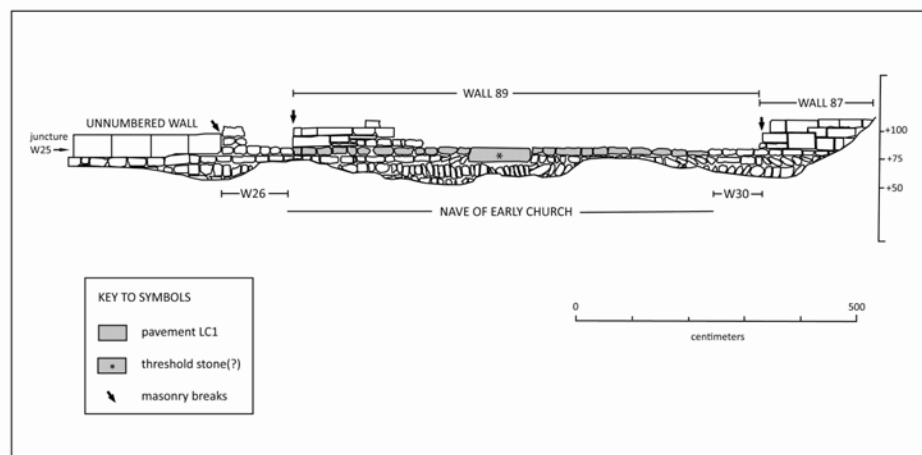


Figure 6.10 Elevation drawing of the west face of the closing walls 89 & 87.
(After Riorden & Tilman 2009: elevation I-J 9A)

Figure 6.10 is an elevation drawing of walls 89 and 87, based on the 2009 drawing IJ 9A by Riorden and Tillman. By aligning the drawing to the site map, we were able to posit a tentative construction sequence. As the figure illustrates, there is a very clear masonry break at the juncture where the north face of W26a would have intersected the closing wall. Two more ambiguous masonry breaks occur at the junctures of the south face of W26a and at the break between walls 89 and 87, where the south face of W30 would have stood. At both these points, the ashlar blocks of the closing wall are adjoined to rough cut stones, perhaps the remnants of a pre-existing opening between the early nave and the later church. The shaded blocks in the figure represent a level of what appear to be paving stones connecting the nave and Late Church 1. The elevation of this supposed pavement is roughly similar to floor 3 in the nave and to the elevation of the floor of Late Church A, and the large flat stone at the center may represent a threshold stone. The fill of a builders' trench associated with the west side of wall 87 provided a "secure date in the twelfth century" (Stoddard et al. 1989:7; Dublin's translation from the French). What this all suggests is that the unnumbered north closing wall and W87 were built or repaired during the first construction campaign, while W89 was added during this second phase, thus closing off the west end of the Late Church. It should be noted, however, that the evidence is merely suggestive, not conclusive.

The south wall extension was abutted to the original south wall (W3) and was clearly built later. Upper levels in this area of the site (trench 6) were excavated prior to our work, so stratigraphy associated with the extension wall was not available to us. An examination of the masonry at the juncture of W3 and the extension clearly shows the abutment pattern (figure 6.11a). The extension was founded on what appears to be an earlier foundation. As the photograph, figure 6.11b, shows, two courses of *pierres froides* underlay two courses of rough-cut stone. The ashlar blocks of the extension wall were laid on the rough-cut courses. The wall was approximately 6 meters in length, and was cut by a doorway that allowed access into the area to the south of the church.

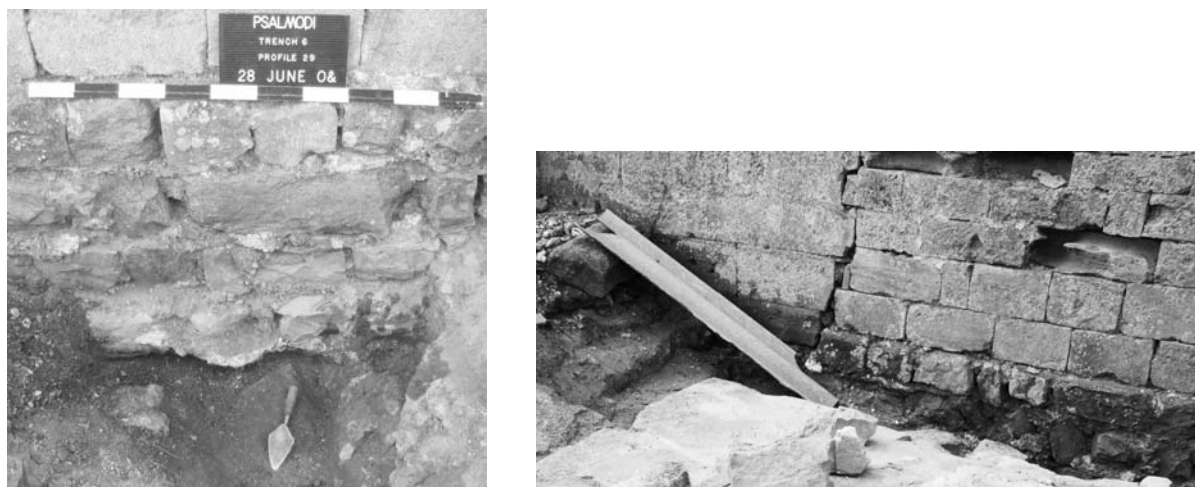


Figure 6.11 Abutment pattern, south wall extension, and underlying foundation.
(Photographs by David Yoon 2008)

Phase B construction – the demolition of the early nave, the intermediate floor, and the forecourt: With the construction of the closing wall, the Late Church was effectively severed from the area to its west, including the early nave. The nave was demolished, and rubble fill, most likely derived from the demolition, was deposited over the remains of the nave walls and floor. A pavement was installed across the area west of the closing wall and south of W26, and the north building was closed off from the body of the church. Two profiles, figure 5.6 across the nave and figure 6.12 across the area north of the nave, illustrate the extent of the changes to this area between the Late Church and the west range. The stratigraphic data are not complete, but they allow us to reconstruct the construction events outlined above.

Figure 5.6 (page 29) presents information on the demolition of the nave, probably the initial event of the second phase construction, and the deposition of sub-floor fill. W30, the south wall of the old nave, was cut down to about +85 cm., and was cut off at the closing wall. Mortar and soil fill (context 10) was deposited over the bedding of Early Church floor 3, and presumably across the surviving surface of W30. The fill was overlain by a coarse pinkish-gray mortar bedding that underlay the remnants of a stone pavement. A similar process is apparent in figure 6.12, a complex profile across the north baulk of trenches 73 and 15 north of W26a, the presumed west wall of the nave. Feature 50, a rubble deposit derived from the remnants of the north nave wall (Dodds 1986), is cut off at the closing wall, again establishing the co-occurrence of the demolition of the nave and the construction of the closing wall. Data on the nave wall elevations and break-off points make it quite clear that the early nave was razed after the construction of the interim church but before the installation of the intermediate floor – i.e., during the second construction phase.

Table 6.4 lists the recorded fill deposits in the area to the west of the Late Church. These deposits extended southward from W1b across the early nave and into the south range. We cannot assign an absolute date to the filling episodes, but their stratigraphic position overlying floor 3 of the Early Church and under the bedding level of the intermediate floor places the filling in phase 2 after the destruction of the early nave and the construction of the closing wall, but before the construction of the Late Cloister (Zaneri 2012).

Table 6.4 Description of fills under the intermediate floor.

<i>Trench/context</i>	<i>Location</i>	<i>Description</i>	<i>Elevations</i>
24.10	nave south of W30	hard gray mortar & dirt	+20 - +60
24.10	nave north of W30	hard gray mortar & dirt	+56 - +80
24.9	nave north of W27	gray-beige sandy silt with pebbles	+65 - +76
87/73 lower	between W26a & b	fine soil, no large inclusions	+63 - +71
87/73 upper	between W26a & b	fill mixed with large stones & rubble	+71 - +98.5
87	nave south of W26	rubble fill	+68 - +96
73.11	north of nave & W26	leveling fill	+65 - +78.5
15.2	north building	rubble fill	+20 - +70
104E	south of W49	yellowish-brown sandy silt & roof tile	+60 - +90

South of W30, there are two levels of fill – a lower level (figure 5.6, context 11) that was deposited directly on the pre-monastic surface, and a later, higher level (context 10) that was identical to the fill inside the nave. It is likely that the lower level does not represent fill deposited after the demolition of the nave, but rather the existing ground surface adjacent to the Early Church.

Figure 6.12, north of the nave, shows a layer of leveling fill (context 73.11) at the same level as the fill that was deposited over the remains of the demolished W26a. Within the confines of the north building (i.e., between W25 and W1), approximately 50 centimeters of rubble fill (context 15.2) was deposited on the substrate. All these fills underlay a floor bedding level at about +90 cm. and probably represent a single deposition that raised the surface of the area west of the Late Church, allowing for the installation of a relatively high pavement. All the sampled deposits but one describe building material as a primary component of the fill. The single exception is the lower fill deposit between walls 26a and b (Baumann 2002), described as “fine soil,” most likely smaller-grained material that had sifted downward to rest on the remnants of the lower wall. As we noted in our discussion of the sub-floor fill in the Late Church, the demolition of earlier structures (in this case, the nave) probably provided material for filling and leveling under the intermediate floor.

The full extent of the intermediate pavement is not known, but it probably defined a forecourt between the closing wall of the church and the west range. Its northern border was W25 of the north building. The southern border is not known, but it probably extended at least as far as W49 and perhaps further, although the data for the south range are unclear. Based on the spatial distribution of floor bedding deposits, the dimensions of this forecourt were at least 21 by 23 meters. Table 6.5 provides a description of the various contexts assigned to the floor beddings and pavements of the forecourt and the north building.

Table 6.5 Reconstructed bedding and pavement levels, intermediate floor.

<i>Trench.context¹</i>	<i>Location</i>	<i>Description</i>	<i>Elevation³</i>	<i>Reference</i>
56.3.15, 16, 19, 20	east of west range	pale yellow mortar (2.5Y 7/3,4)	+92	Dublin 2002
100.4.8 ²	south of W31	light yellowish-brown mortar	+95	Dublin 2002
88.5.19	north of W49	pavement	+105	Dublin 2002
24.12	south of W30	coarse pink-beige mortar	+85	figure 5.6
24.12	between walls 30 & 26	coarse pink-beige mortar	+87.5	figure 5.6
24.12a	between walls 30 & 26	pavement	+100	figure 5.6
24. floor 1	north of W30	gray-beige mortar, pavement	+86.5	Lazio 1978
24. floor 1	north of W30	pavement	+100	Lazio 1978
73.12	between walls 26 & 25	greenish-yellow mortar	+89	figure 6.12
73.13	between walls 26 & 25	chalky mortar	+91	figure 6.12
15.3	north building	mortar	+85	figure 6.12
15.4	north building	chalky mortar	+93	figure 6.12

NOTES:

¹Profiles that are not reproduced here are designated by the trench.profile number.context. For example “88.5.19” refers to trench 88, profile 5 (Dublin 2002), context 19.

²Sherds from this context yielded a *terminus post quem* of 1250 C.E.

³Floors inside the church remained at their previous levels, so there would have been a 20 centimeter step-down from the intermediate pavement to the interior of the church.

Intermediate floor bedding levels ranged from +85 to +91 cm., while the pavement levels ranged from +100 to +105 cm. The mortar varied in color from yellowish-brown to gray- or pinkish-beige, but was uniformly different from the grainy yellow mortar of the latest floor of the Early Church. Mortar samples were not available to us, so it is impossible to determine whether these different descriptions were artifacts of a subjective description process or whether the mortars actually differed. They do, however, appear to be quite different from the mortar bedding in the Late Cloister, which has uniformly been described as “yellow.” Figure 6.12 presents what is perhaps the most telling information on construction activities in this area of the site. The complex depositional history represented here encompasses phase 1 floor bedding north of the early nave (context 73.7). The phase 1 bedding underlay a layer of leveling fill (context 73.11) and the bedding for the intermediate floor

(context 73.12) and was cut by the builders’ trench for W25 of the north building. The intermediate floor, on the other hand, overlies the builders’ trench, indicating that it was installed after the construction of W25. The floor bedding inside the north building (context 15.3) is not described, but it is at a similar elevation to context 73.12. Both bedding levels were overlain by what appears to be a skim coat of chalky mortar.

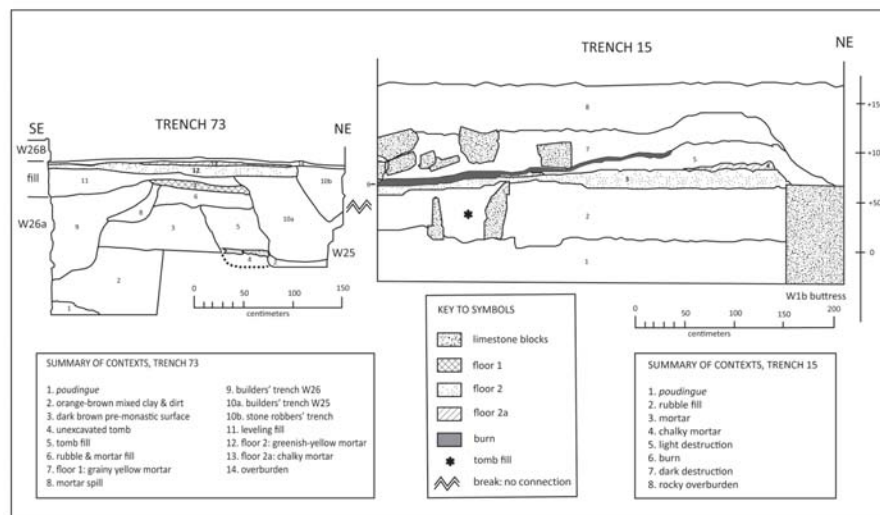


Figure 6.12 North baulks of trenches 15 & 73, showing the intermediate floor level and the floor of the north building. (After Young in Stoddard 1983)

North building. As Riorden & Tillman (2011:9) point out, “it is most likely that the [north] aisle was partitioned off from the rest of the church to serve some other function.” What that function might have been is unknown, but the building and the church were clearly separated by the north end of the closing wall (W88). The gap between the newly constructed W88 and W137 probably served as an entryway between the two buildings.

We have suggested that W1b was in place, perhaps as part of a planned north aisle, at the time that phase 2 construction began. As figure 6.12 shows, the northernmost buttress was built into the substrate, apparently prior to the deposition of the rubble fill (context 15.2) since there is no builders’ trench. W25, which formed the southern boundary of the north building, was built during phase 2. Again referring to figure 6.12, it can be seen that the builders’ trench for W25 was cut through the earlier floor 1 (context 73.7), and floor 2 (context 73.12) was laid over the trench. The stratigraphy therefore places W25 construction after phase 1 and clearly indicates that floor 2 was associated with that wall. W35 served as the western boundary of the north building. It is reasonable to suggest that this wall was also built during phase 2, completing the north building. There is, however, no stratigraphic or architectural evidence of this, since all salient levels were removed prior to our study and we were unable to locate any record of the excavation. There is a gap, perhaps an entryway, between W35 and W1b and a raised platform of unknown function at the west end. The dimensions of the completed north building were approximately 28 meters by 6.5 meters. The upper floor in the north building was overlain by a burned level and levels of destruction rubble.

Late Church – stratigraphic sequence and discussion. The stratigraphic analysis provided insight on the sequence of activities over the two construction phases and on the process of spatial decision making. Construction on the church was clearly completed in two phases, the first phase during the late twelfth century and the second probably in the early fourteenth century.

The initial construction campaign laid out the basic form of the Late Church. The first steps were probably destructive rather than constructive – the demolition of the early apses and transepts. The resulting rubble was used as fill to raise the sub-floor surface of the lower eastern slope and the early cemetery. The center apse was built directly on the pre-monastic surface; clearly, there had been no previous development in this area. The apses and the exterior walls were erected at least as far as the east end of the early nave, and internal features – altar, piers, choir stalls, and flooring – were installed. The nave of the Early Church remained in place, connected to the body of the new church. To some extent, this interim construction was a hodgepodge of new and old elements. The southwest corner and the west wall were unfinished, raising a question as to protection of the interior against the elements. It is possible that W3 abutted an earlier standing structure (see figure 5.2, page 27), which would have closed off the southwest corner. A temporary curtain wall may have been erected to close off the unfinished west end, but it is equally likely – and more cost-effective – that the medieval builders used the existing west wall of the early transepts as a temporary closing wall. The location of this interim west wall was never found, perhaps because it was buried into the fabric of the later closing wall.

The alteration of the original plan, expressed architecturally by the closing wall, was the key event in the second construction campaign. The demolition of the early nave and the erection of the closing wall created three distinct spaces – the church itself, the north building, and a forecourt to the west of the church. The church was terminated at the closing wall, thus detaching the north building from the body of the church, and the forecourt was paved. The north building was expanded westward as far as the west range, which was probably redeveloped during this same construction event.

The plan view, figure 6.13, shows the configuration of the sacred precinct at the end of each phase. The reconstruction is based on our observation and interpretation of the available stratigraphy, on basic spatial logic, and on inference from incomplete data. As such it should be considered hypothetical, subject to revision based on additional research. Phase A produced an interim church that probably remained in use into phase B. The early nave was demolished at the onset of phase B and replaced by a reconfigured west end dominated by an apparently open forecourt. The finished church departed from the traditional basilica form in the lack of side aisles and a formal nave. Information on entry points is sparse, but there was a doorway at the northwest corner between the church and the north building, and a second one at the south choir that was most likely for the use of the monastic community.

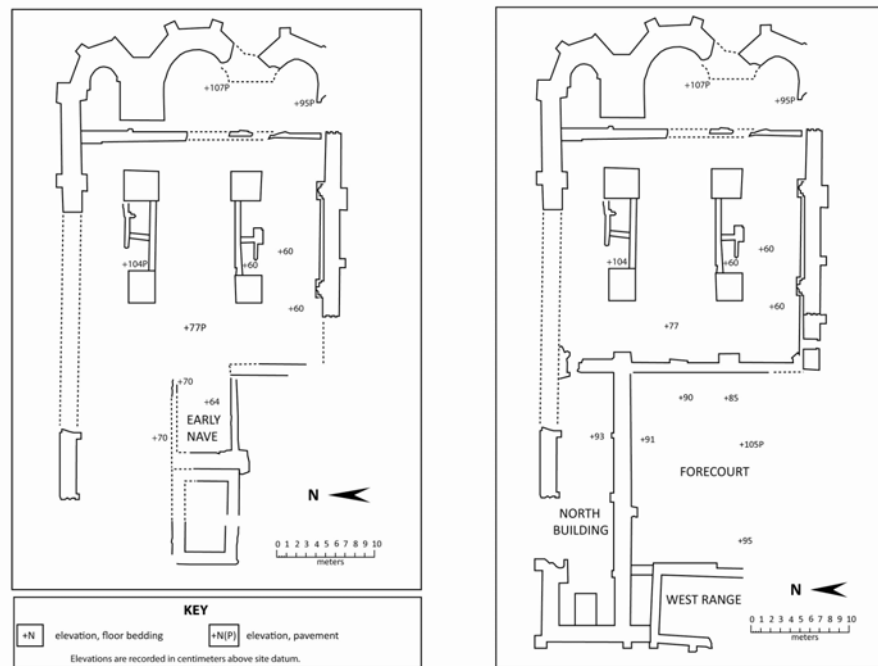


Figure 6.13 Footprint of the interim church (left) and the finished church (right).

The research opened a number of interesting theoretical doorways on spatial decision making at Psalmodi. We have neither the time nor the space to consider these in detail, but hopefully they will provide some questions for future work on this or other medieval monasteries.

Siting the Late Church on the lower-lying eastern slope of the site was a product of cultural and spatial constraints. Christian tradition required that the apses be in the east, the symbolic direction of resurrection (Duby 1988:40). If the early nave was to remain in place even temporarily, this dictated that the new components be adjoined at the eastern end of the old nave, which in any case was one of the few available spaces to build a substantial structure. What this meant was that the apses would be built on a low point on the landscape, necessitating filling to level the construction surface and to raise floor levels up to those of the Early Church. Construction was clearly a labor intensive process requiring demolition and filling over a large area; the excavation and building of complex and deep foundations; the demands of ashlar masonry techniques; and the establishment of physical connections between existing and new elements. Economic concerns and labor availability probably meant that the building process was a lengthy one. The retention of the early nave suggests that the church continued to be used during the construction period. The adaptive reuse of older building elements remained a theme throughout the use life of the monastery. Some of this reuse can be considered expedient. Some was most likely symbolic, creating connections between past and present and maintaining continuity as the monastic community and architecture changed over time. This is further discussed in the conclusion to this report.

During the second phase of construction, the builders broke from the original plan of the church. The extended length of W1 suggests that the church was initially meant to be built as a basilica, with a significantly larger footprint than the Early Church and with a nave that extended perhaps as far as the west range. This would have resulted in a rectangular structure that measured approximately 50 meters on the east-west axis and 25 meters on the north-south. The closing wall significantly cut the finished dimensions of the church to approximately 30 by 25 meters. The closing wall, possibly an amalgam of several earlier wall segments, almost appears to be an afterthought, a tactical adaptation rather than a strategic plan (De Certeau 1984; Zaneri 2012). This is an important distinction, as Zaneri has so ably discussed, and it undoubtedly reflects sociopolitical and economic conditions existing in the fourteenth century.

By reference to various spatial and directional models (Duby 1988:38-56; Hillier and Hansen 1984; Horn and Born 1979), we can tentatively reconstruct use areas in the finished church. The north building was probably entered from the northwest, the direction of the world and its corruption. This building and the forecourt, also to the west of the church, would most likely have served as public space. The church itself appears to consist of two or perhaps three use areas that included monastic space (the choirs), ritual performance space (the altars), and perhaps public space (to the west of the choirs). Given the available data on doorways, it would appear that accessibility into, and public space inside, the church were limited. The choirs were most likely separated from the altars and any interior public space by a rood screen, and they could be entered directly from the monastic living quarters south of the church. The altars were raised and presumably separated from the choirs by several steps and perhaps a railing. In sum, the architectural and social spaces within the church, and probably within the sacred precinct, were clearly demarcated.

7. THE LATE CLOISTER

During the fourteenth century, the construction of a new cloister signified yet another reconfiguration of the space between the closing wall of the Late Church and the west range. Figure 7.1 shows the footprint as reconstructed from floor levels and standing walls. From a stratigraphic standpoint, there are a number of problems with the archived drawings, including inconsistencies in recording and labeling strata, conflicting elevations, and incomplete sequences, especially in the south range. The south range also presented problems of post-depositional disturbance related to the post-abandonment use of the farm. These included late features such as the well and privy in trenches 88 and 104, and trenches associated with the installation of utilities and landscaping. Much of the northern half of the cloister was unavailable to us, since the area had been excavated down to Early Church strata. In this case, we relied on archived profiles in trenches 24, 70, and 73 to develop a partial stratigraphic sequence; these drawing are reproduced here as figures 5.6 (page 29) and 6.12 (page 45). Despite these shortcomings, profiles across the known extent of the cloister (figure 7.1) provide an incomplete but well-distributed view of the stratigraphy of the cloister. Our analysis draws primarily on information on floor levels and builders' trenches, where present and recorded.

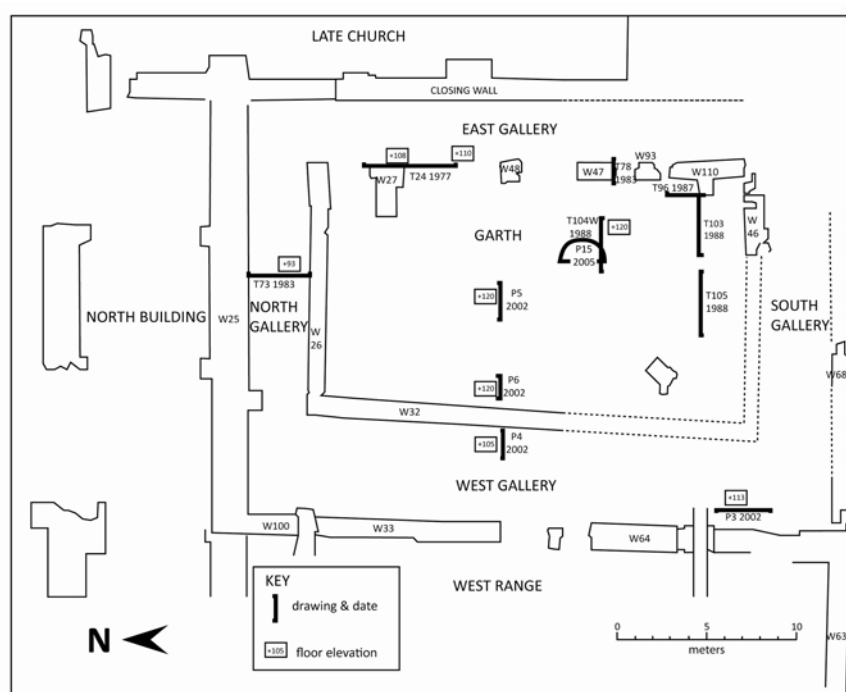


Figure 7.1 Footprint and floor levels of the Late Cloister; drawings used in the analysis.

The cloister was nested within the space created by the Late Church, the north building, and the west range, and bounded by previously constructed party walls shared with these buildings. The discernible gallery walls and piers (W26, 27, 32, 47, 48, 93, 110), however, were built specifically for the cloister. The undiscovered southern boundary was most likely under the farmhouse, where remnants of a buried wall are visible under the foundations. This buried wall lines up with W68 in trench 51 and the northern extension of W63, the alignment marked by dashed lines connecting the wall stubs in figure 7.1. The cloister measured about 25 meters from the closing wall to the west range, and about 35 meters from W25 to the line of the current farmhouse. It consisted of a central garth and four galleries. The north, east, and (presumed) south galleries were each about 3 meters in width. The wall of the west gallery (W32) appears to have angled westward along a line parallel to the line of the west range; it was about 5 meters wide. Presumably, there would have been an entry from the church, but we were unable to locate it.

The usable stratigraphic data are spotty, but the available information indicates that most of the gallery foundations were set relatively high (about 50 to 60 centimeters above the site datum) and overlay either the intermediate floor or a burn level most likely associated with the Early Church. Table 7.1 lists the basal elevations and associated strata, where available. Builders' trenches for walls 26, 27, and 32 are illustrated in figures 6.12 (W26b), 5.6 (W27) and 7.2 (W32).

Table 7.1 Gallery walls, Late Cloister.

Wall	Elevation ¹	Associated strata	Reference
26b	+63	rubble fill; cloister floor bedding (fig. 6.14, cxt. 12)	Young 1983
27	<+12	builders' trench; cloister floor bedding (fig. 5.6, cxt 15, 13)	Lazio 1977
47	+64	charcoal; rubble fill	Field notes 1983
93	N/A	charcoal	Field notes 1983, 1987
110	+54	charcoal; mortar bedding	Field notes 1983, 1987
32	+66	builders' trench; cloister floor bedding (fig. 7.2, cxt 7)	Dublin 2002

NOTES:

¹Elevations refer to basal levels.

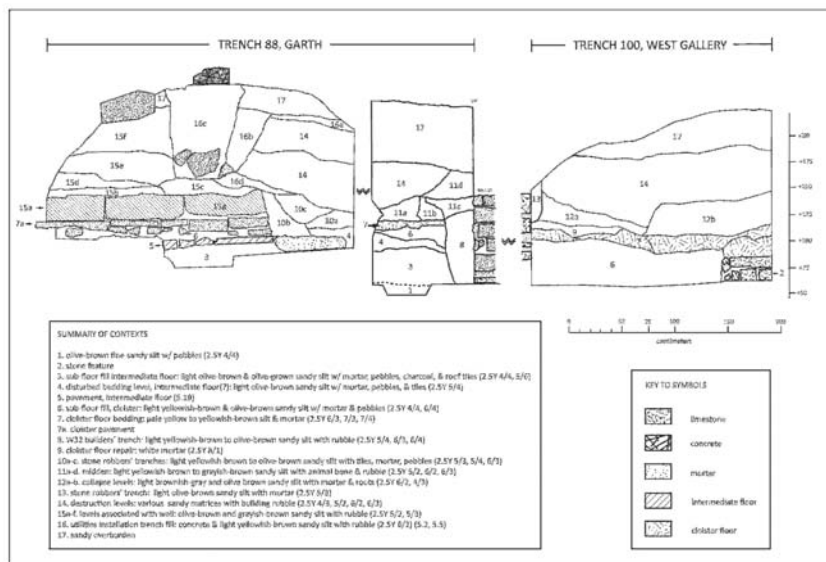


Figure 7.2 South baulks, Trenches 88 & 100, garth & west gallery of the cloister.

rather haphazard construction technique, with uneven courses and the inclusion of considerable spolia from earlier structures, as shown in the photograph, figure 7.3. Zaneri has theorized that this seemingly haphazard construction represented a shift in spatial decision making from a strategic to a tactical approach, the latter essentially a makeshift adaptation to a rapidly shifting social structure (De Certeau 1984; Zaneri 2012). The

The cloister levels shown in figure 7.2, a combined profile across the south baulks of trenches 88 and 100, are reasonably clear despite significant post-depositional disturbance related to the installation of utilities and the presence of a farm-related cistern or well. The strata (contexts 6 through 8) include W32, the associated builders' trench, floor bedding and pavement levels, and sub-floor fill deposited on the intermediate floor. The masonry of W32 suggests a



reuse of spolia from earlier walls is fairly common at Psalmodi. This was most likely an expedient strategy of reuse where stones were culled from earlier structures. W100, at the northwest corner of the cloister, was probably also constructed at this time. It abuts W25, the north wall of the cloister, and W35, the north wall of the west range, and serves to close off the cloister from the surrounding monastic structures. The addition of this wall would have served to create the cloister as a fully enclosed space within the heart of the sacred precinct.

Figure 7.3 Spolia incorporated into the masonry of W32. (Photograph by Robert Dublin 2003)

Remnants of the cloister floor bedding and pavement are scattered. Probably, the garth was landscaped rather than paved, with the possible exception of paths into the center, one of which may be visible in the alignment of floor bedding and pavement in trench 88. A fragment of pavement was also present in trench 104. This may represent a paved feature, but without a larger stratigraphic exposure, that is entirely conjectural. Remnants of a possible lavabo (W113) are present on the southwest corner (Riorden and Tilman 2011:9). The floor was directly overlain by abandonment and destruction levels, indicating that the cloister was the latest built feature in this area of the monastic complex. Bedding levels consisted predominantly of a pale yellow mortar at elevations ranging from +93 to +120 cm. (mean elevation 108.2 cm.). Table 7.2 lists cloister floor levels encountered during our research.

Table 7.2 Floor bedding levels across the cloister area.

<i>Trench. context</i>	<i>Elevation</i>	<i>Description</i>	<i>Reference</i>
73.2-3	+93	grainy yellow, chalky	Young n.d.
24N.13	+108	coarse yellow-white	Lazio 1977
24-70.2	+110	coarse yellow-white	Anon. 1978
88.5.7	+120	Pavement	Dublin 2002: profile 5
88.6.7	+120	pale yellow (2.5Y 7/3)	Dublin 2002: profile 6
104.15.	+120	Pavement	Dublin 2005: profile 15
100.4.7	+105	white to pale yellow (2.5Y 8/1, 6/3, 7/4)	Dublin 2002: profile 4
56.3.10, 11	+113	light brownish-gray to pale yellow (2.5Y 6/2, 7/3)	Dublin 2002: profile 3

Archived profiles across the known extent of the cloister provide an incomplete but spatially distributed view of the stratigraphy. Figure 7.4, in the west gallery, presents a full sequence from the pre-construction surface (context 1) through the monastic period (contexts 2 through 17), the abandonment and destruction of the abbey (contexts 18 through 21), and into the farm period (contexts 22 and 23). The earliest construction-related activity in this area was the installation of the intermediate floor over about 30 centimeters of sub-floor fill. A level of inter-bedded fine silts, apparently water-deposited, lay between the intermediate and cloister floors, suggesting that the intermediate floor was open to the elements. A *terminus post quem* on a single sherd from these silts yielded a date of 1250 C.E. A trench associated with the installation of a drainage conduit (contexts 14, 15) was cut through this floor and through the inter-bedded silts. Based on a *terminus post quem* of 1300 C.E. on sherds recovered from the trench fill, the conduit was most likely dug in the fourteenth century. These dates indicate that the intermediate floor and the conduit were most likely built in the late thirteenth or early fourteenth century, followed by the construction of the west gallery.

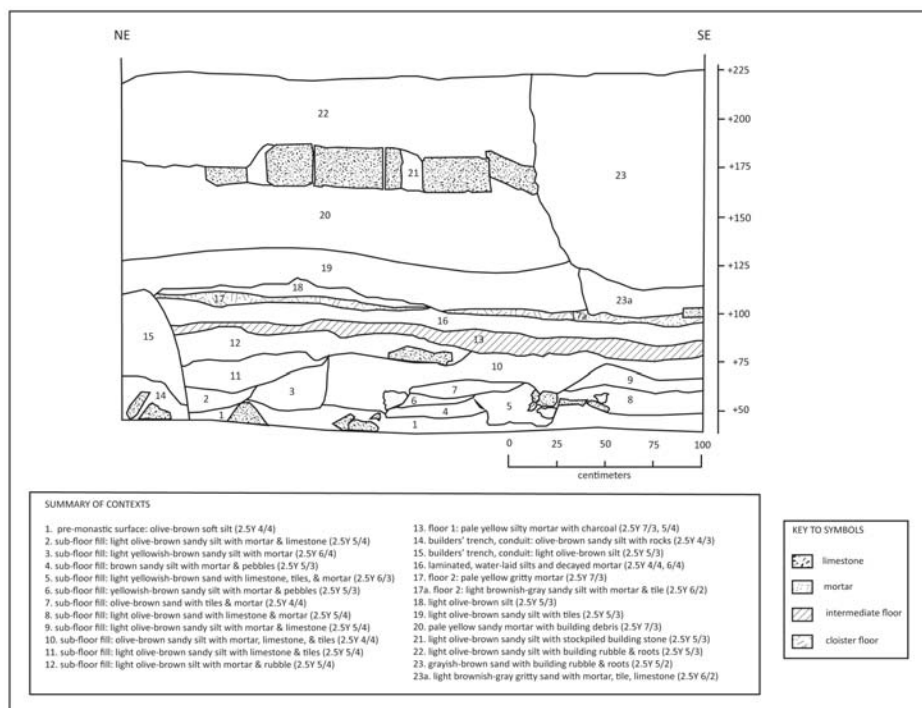


Figure 7.4 East baulk, Trench 56, west gallery of the cloister.

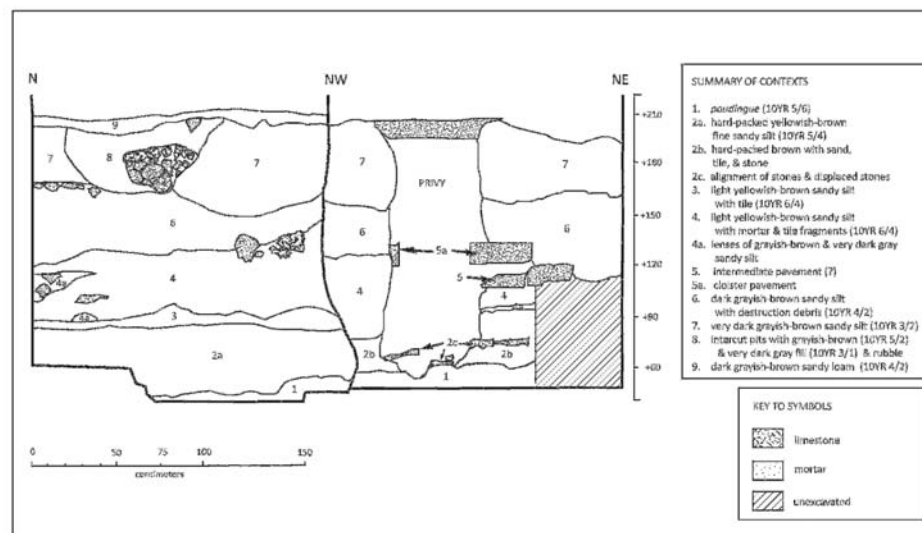


Figure 7.5 Combined profiles, Trench 104 inside cloister garth.

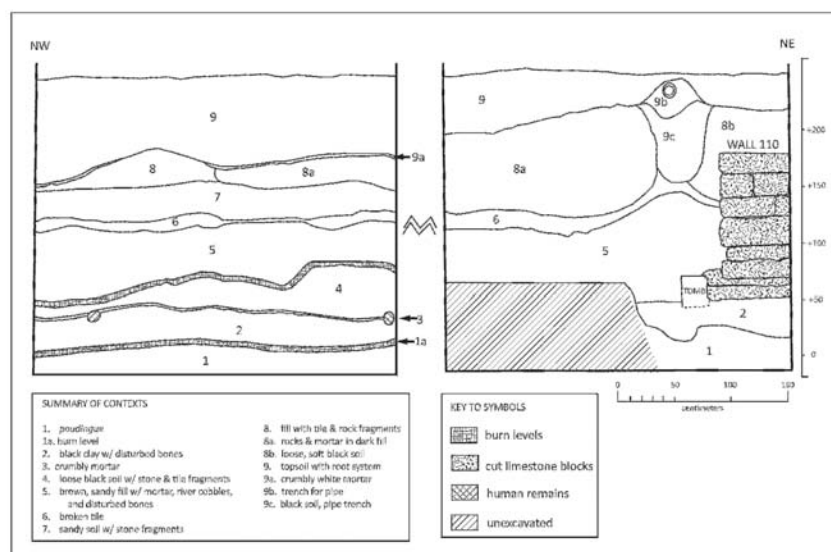
In analyzing the stratigraphy of the cloister, we linked the archived profile of trench 104 (field notes 1988) with our profile 15 (Dublin 2005); both are reproduced here as figure 7.5. Figure 7.6 presents the archived profiles of trenches 103 and 105 (field notes 1988) in the southern section of the garth. We also reviewed the 1983, 1987, and 1988 field notebooks. Taken as a whole, these enabled the tentative reconstruction of stratigraphy in this area of the cloister. Table 7.3 summarizes the stratigraphic levels identified from this accumulated information.

Table 7.3 Stratigraphic levels, cloister garth.

<i>Trench(es)</i>	<i>Elevation</i>	<i>Description</i>	<i>Reference</i>
78, 103	+16 - +38	Substrate	Field notes 1983, 1988; Dublin 2005
78, 96, 103-105	+32 - +50	pre-monastic surface	Field notes 1983, 1987, 1988; Dublin 2005
96	+43 - +51	tomb fill	Field notes 1987
78, 96, 105	+45 - +56	EC-A floor bedding	Field notes 1983, 1987, 1988
78, 96, 105	+50 - +58	EC-A/B burn level	Field notes 1983, 1987, 1988
103, 105	+50 - +108	brown sandy fill	Field notes 1988
96, 103	+51 - +179	wall 110	Field notes 1987, 1988
78	+64 - +136	wall 47	Field notes 1983
78	+64 - +150	rubble fill	Field notes 1983
104	+75	stone alignment (pavement?)	Field notes 1988
104	+90	sandy silt with tile (surface?)	Field notes 1988; Dublin 2005
104	+90 - +120	yellowish-brown sandy fill	Field notes 1988; Dublin 2005
96	+90 - +178	rubble fill + thick mortar	Field notes 1987
104	+114 - +120	intermediate pavement (?)	Field notes 1988
104	+132	cloister pavement	Field notes 1988
103, 105	+108 - +130	tile (surface?)	Field notes 1988
78, 103-105	+130 - +235	destruction levels	Field notes 1983, 1988; Dublin 2005
78, 96, 103-105	+163 - +270	farm levels	Field notes 1983, 1987, 1988; Dublin 2005
104	+54 - +210	privy	Field notes 1988

NOTES: Cloister levels in boldface.

The high level of farm-related disturbance is visible in the discontinuity of levels in the linked profiles and in the presence of late features cut through the monastic levels. However, there are continuities that can be observed, including a low floor bedding level that is most likely associated with the Early Church and is overlain by a burn level. Walls 47 and 110 were laid directly on this burn level, suggesting that at least part of the area had remained undeveloped for quite some time before the construction of the cloister. A number of levels that overlie the burn have been generally described as “fill.” These represent either the accumulation of fire debris or deposits purposively placed to raise the surface of the cloister garth, but the limited stratigraphic visibility precludes a more precise interpretation. What is described as a “thick mortar level” in trench 96 (field notes 1987) was most likely associated with the underlying rubble fill. The deposit, at 36 centimeters thick, is wider than most floor bedding levels at the site and appears to be incorporated within the fill.



Four possible surfaces were identified in trenches 103/105 and trench 104. In Trench 104, a feature (figure 7.5, context 2c) consisting of three aligned stone blocks along with several others that were apparently displaced by the excavation of a later privy occurred at an elevation of about +75 cm. It is not clear what this might represent, and here too, the visibility is limited. A possible intermediate floor pavement, two aligned be present in trench 104 (figure 7.5, context 5). The surface

Figure 7.6 North baulk, Trenches 105 and 103, cloister garth. (After Breisacher in Stoddard 1988)

elevation, about +114 cm., is in keeping with estimates for the intermediate pavement, and it is possible that the feature extended as far south as trench 104. There is no evidence of an intermediate pavement to the south of this trench. Two deposits containing high concentrations of broken tile may represent buried ground surfaces at the level of the intermediate floor (figure 7.5, context 3) and the cloister floor (figure 7.6, context 6). In general, however, the stratigraphic data strongly suggest that the south range was relatively undeveloped between the fire that destroyed the Early Church (circa 900 C.E.) and the construction of the cloister in the fourteenth century.

The Harris matrix, figure 7.7, draws on the above data to develop a tentative stratigraphic sequence across the southern half of the cloister, including much of the garth and the west gallery. Table 7.4 provides a key to the various types of deposits shown on the Harris matrix.

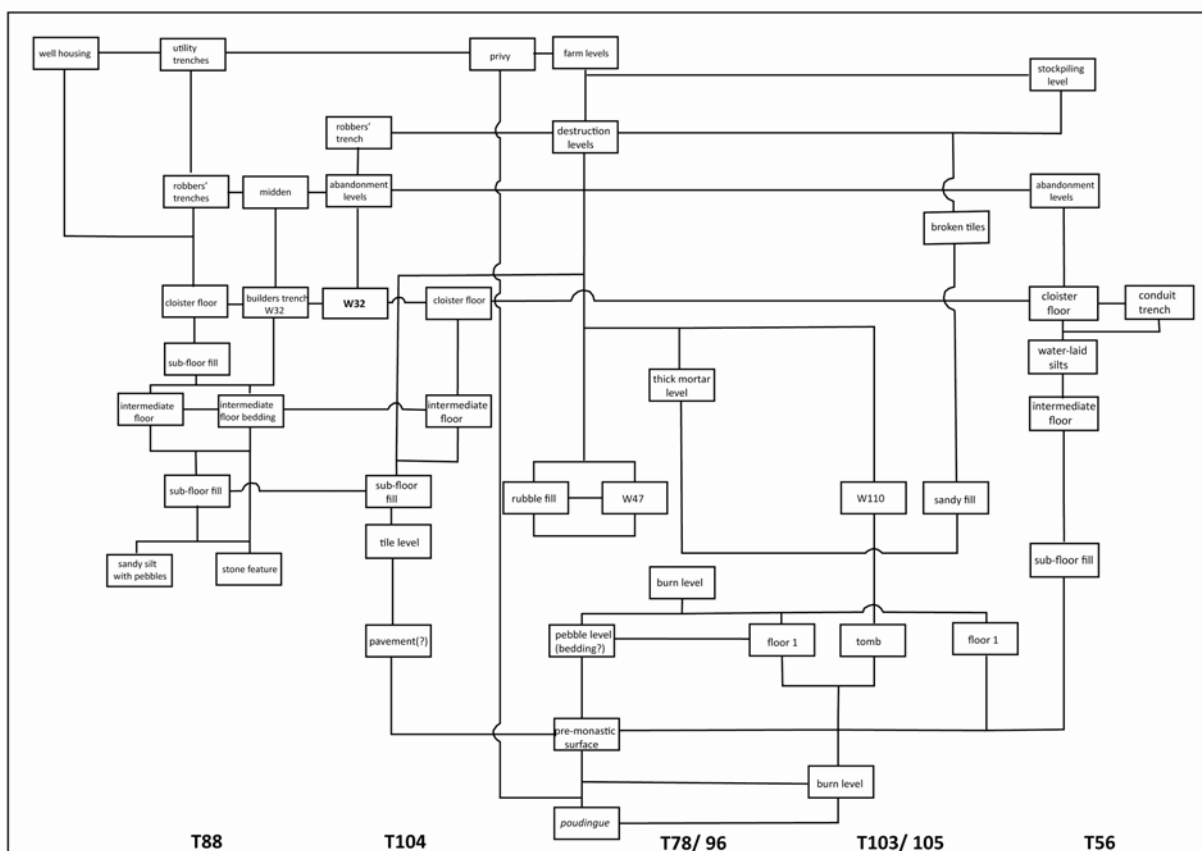


Figure 7.7 Harris Matrix, garth & west gallery of the cloister.

This rather complicated matrix can be broken down into four broad diachronic sections – early deposits (substrate, pre-monastic surface, Early Church levels); deposits related to the intermediate floor; deposits associated specifically with the cloister; and finally, overlying deposits associated with the abandonment of the monastery and farm-related activities. The construction history varied across the full extent of the cloister. In general, construction activity in the area south of walls 48 and 49 included Early Church period deposits through floor 1 and the overlying burn level, after which there is a stratigraphic gap until the cloister levels. It would thus appear that this section of the site remained undeveloped for as long as 400 years. To the north of walls 48 and 49, the cloister overlies a full sequence of deposits from Early Church-A through the intermediate floor. In trench 104, the cloister levels overlie what appeared to be two pavement levels, both most likely post-dating the Early Church. In the north and east (trenches 24, 70, and 73), cloister levels overlay a full sequence of deposits through both Early and Late Church periods. Monastic abandonment and destruction related deposits overlay the entire cloister area, clearly demonstrating that the cloister represented the latest monastic construction in this area.

Table 7.4 Corresponding context numbers for deposits shown on the Harris matrix, figure 7.7.

<i>Context description</i>	<i>Trench.context</i>
substrate	103/105.1, 104.1; T78 field notes 1983
pre-monastic burn level	103/105.1a
pre-monastic surface	56.1, 103/105.2, 104.2b; T78 field notes 1983
disturbed surfaces	104.2a
floor 1	103/105.3; 104.2c; T78 field notes 1983; T96 field notes 1987
tomb	103/105; T96 field notes 1987
Early Church burn level	103/105.4; T78 field notes 1983
tile level (surface?)	104.3
stone feature	100.2
fill under intermediate floor	56.2-12, 88.3
intermediate floor	56.13, 88.4-5
inter-bedded silts	56.16
conduit	56.14-15
walls 47, 110	103/105; T78 field notes 1983; T96 field notes 1987
fill above EC burn level	103/105.5; T78 field notes 1983; T96 field notes 1987
thick mortar level	T96 field notes 1987
fill under cloister floor	88.6, 100.6, 104.3-4
W32 & builders' trench	88.8
cloister floor	56.17, 88.7, 100.7 104 pavement 2
broken tiles (surface?)	105.6
abandonment levels	56.18, 100.12
stone robbers' trenches	88.10, 100.13
midden levels	88.11
broken tile level	103/105.6
destruction levels	56.19-20, 88.14, 100.14, 103/105.7-8, 104.5; T78 notes 1983; T96 notes 1987
stockpiling level	56.21
farm levels	56.22-23, 88.15-17, 103/105.9, 104.6; T78 notes 1983; T96 notes 1987

Table 7.5 Ceramic *termini post quem* on cloister and associated contexts.

<i>Type of deposit</i>	<i>T88</i>	<i>T104</i>	<i>T56</i>	<i>T100</i>
intermediate floor	1250	1300		1250
deposits between intermediate & cloister floors		1600 ¹	1250	
builders' trenches W32, W78	1300 ²		1300 ³	
cloister floor	1300			
stone robbers' trenches	1300			
destruction levels	1500	1700		

NOTES:

¹Fill level under cloister floor

² Wall 32 (west gallery)

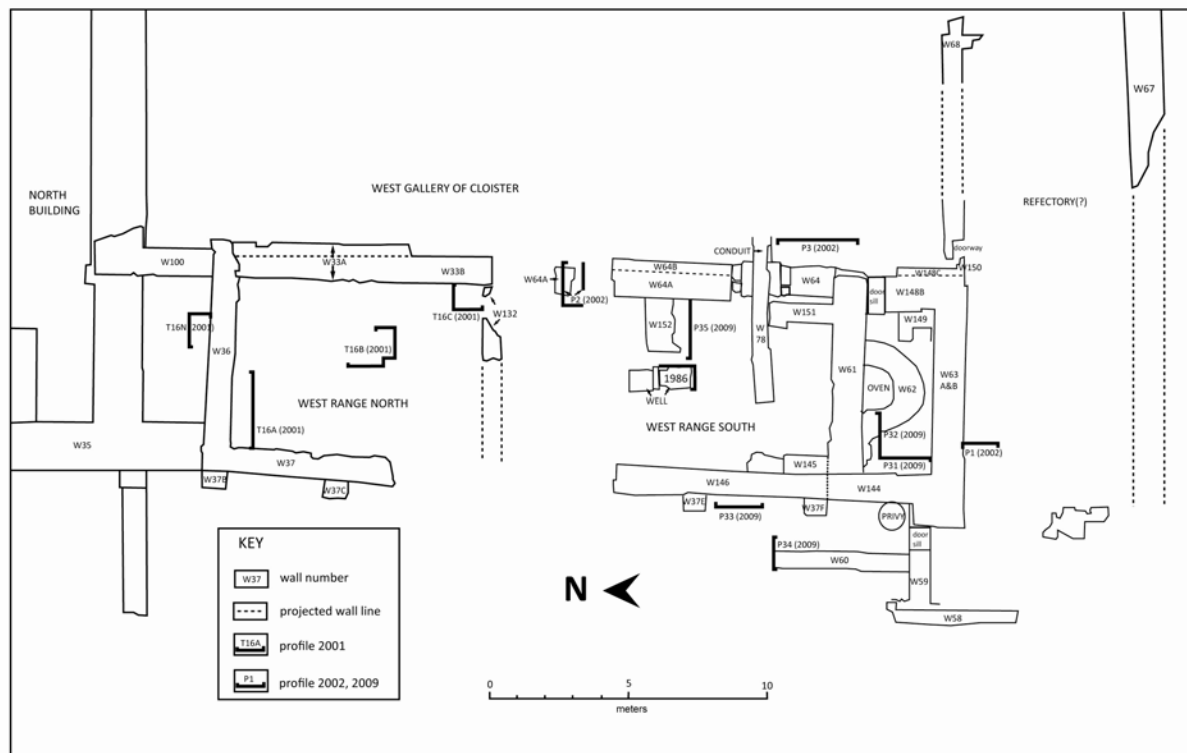
³Wall 78 (conduit channel)

A set of *termini post quem* on ceramics recovered from trenches 56, 88, 100, and 104 can be used to provide a temporal framework for the cloister and associated levels. These are listed in table 7.5. The dates are consistent save for a single outlier, a date of 1600 C.E. from cloister floor deposits in trench 104. This late date probably reflects the circumstances of the baulk (Dublin 2005), which encompassed a circular trench excavated in 2005 to house a septic tank; it is likely that the late sherds were intrusive. Leaving aside this date, it would appear that the intermediate floor was laid in the thirteenth century and the gallery walls and cloister floor were built in the early fourteenth century. Destruction levels post-date the sixteenth century, in keeping with historic accounts of the secularization and abandonment of the abbey in 1537.

8. THE WEST RANGE

The “west range” is the designation that we have applied to the rectangular area west of the Early Church and the fourteenth-century cloister. This area was initially thought to contain a single building that housed the monastery’s refectory. Intensive stratigraphic investigation, however, has revealed evidence of a north and a south building, each with a unique depositional and construction history. The north building was bounded by walls 33, 36, and 37. Its southern boundary was probably wall 132, a wall stub abutted to W33. Between walls 35 and 36, there was a small rectangular space with a high pavement floor; its function is not known. The south building, bounded by walls 64, 148, 63, 144, and 146, was apparently a utilitarian structure that housed a food preparation area and a water control system. South of W63, a stone pavement remained *in situ*. This feature, which appears to be relatively late, was probably associated with a structure bounded by walls 63, 51, and 67. The location, at the north end of the monastic living quarters, and long, narrow configuration suggest that this building was in fact the refectory. To the west of W144, walls 59 and 60 defined a space that appears to have served as a bath house; a door sill at the east end of W59 connected this area to the south pavement. A circular privy in the southeast corner of this enclosure was fully excavated, but we have been unable to locate any related notes or drawings. Work in this area also produced information on the abandonment and destruction of the abbey, discussed in chapter 9.

Figure 8.1 presents a plan view of the west range showing the locations of the drawings used in our analysis. The available stratigraphy has been well studied, and findings are discussed in detail elsewhere (Dublin 2002; Dublin and Zaneri 2009; Burr 2009; Yoon 2010). Readers are referred to these reports for details. Here we outline the data on the walls, floors, and features, and provide a re-evaluated stratigraphic sequence.



not all the deposits were described in the original field notes. Where possible, we have labeled contiguous strata. Our interpretations, based on the morphology and stratigraphic positions of the unidentified deposits, are followed by a question mark. The masonry styles, construction techniques, and bonding/ abutment patterns of Walls 33 and 37 were recorded in detail by Mary Burr (2010).

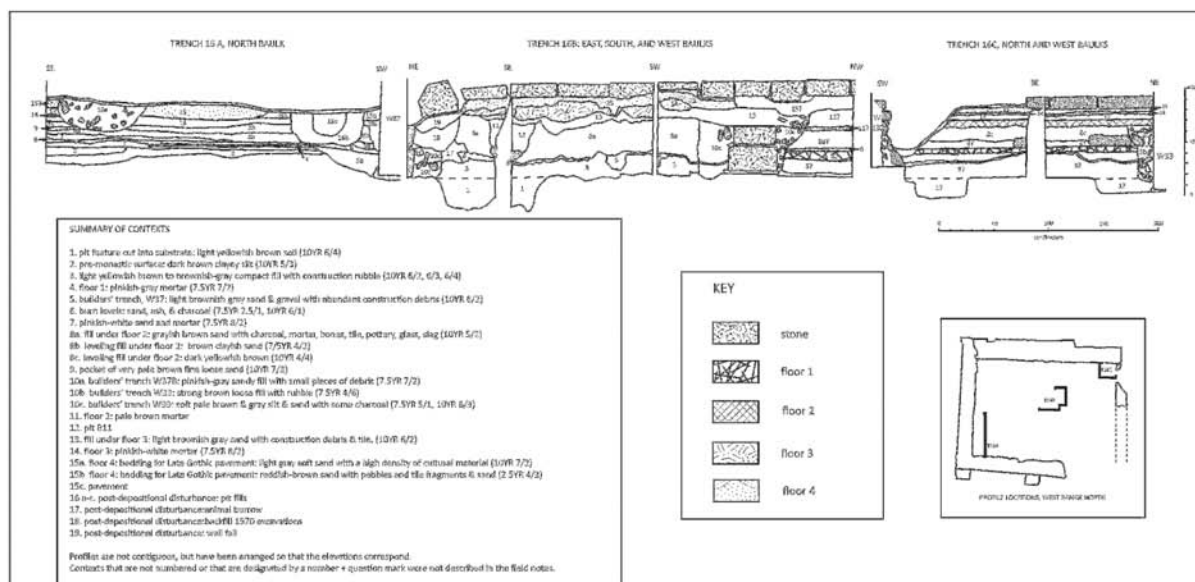


Figure 8.2 Profiles, West Range North. (After Baumann in Yoon 2010).

This structure saw a lengthy occupation that spanned a period from Early Church-A through the abandonment of the abbey, with an apparent gap between the fire that destroyed the Early Church and the construction of the later one. The existing pavement experienced significant slumping, as seen in the 30-centimeter difference in elevation across the area. A remnant of W132, thought to divide the north and south buildings, was recorded by Baumann in 2001.

Table 8.1 Floor bedding levels, west range north.

Floor	Elevation	Context	Description & comments
1	+48	A4	pinkish-gray mortar (7.5YR 7/2)
1	+45	C4	light brownish-gray mortar (10YR 6/2); paving stone +58
2	+68	B11?	no description; north of W99
2	+71	C11	pale brown mortar (7.5YR 6/3)
3	+74 - +82.5	all profiles context 14	pinkish-white mortar (7.5YR 8/2)
4	+80 - +90	all profiles context 15	light gray soft soil under pavement (10YR 7/2)

Table 8.1 summarizes the floor bedding deposits found across trench 16. Based on the mortar descriptions, associated strata, and relative elevations, we were able to group the deposits into four broad levels, not all of which were present in all three profiles. Floor 1 (figure 8.2, context 4), laid over a narrow band of fill deposited on the pre-monastic surface, represents the earliest floor bedding level. Floor 2 was laid over a thick deposit of fill (context 8c) and a builders' trench associated with W33 (context 10b). In profile 16B, at the center of the building, an un-described level (context 11?) appears to be a continuation of floor 2. Floor 3 was identified primarily by mortar color since the surface elevations varied across the north building, probably the result of the slumping noted above. In profile 16A, this floor was represented by a small band of mortar cut by a later pit (context 16a). Floor 4, present at various elevations, consisted of a soft sandy bedding level under the existing pavement. The floor data therefore point to at least four construction phases.

Based on the relative elevations, it seems that this building, like the south range, remained undeveloped between the fire and the construction of the Late Church.

Table 8.2 Wall data, West Range North.

Wall ¹	Dominant masonry ²	Bonded	Abutted	Associated strata & comments
33A	<i>pierre froide</i>	36	31	lower builders' trench (16C.10b); abuts floor 1 (16C.4), sub-floor fill (16C.8c); underlies floor 2 (16C.11)
33B	ashlar	N/A	N/A	upper builders' trench (16C.10b); rebuilt with ashlar above +54cm.; 35 cm. narrower than 33A
37A	fossiliferous rough cut	36	none	builders' trench (16A.5); abuts floor 1 (16A.4), overlain by burn level (16A.6)
37B	fossiliferous rough cut	N/A	N/A	builders' trench (16A.10a); rebuilt with reused stone (?) above +50cm.; overlain by floor 4 (16A.15)
37C	ashlar	36	buttresses	ashlar block replacements in NW corner, buttressed along west face
99	ashlar	N/A	N/A	builders' trench (16B.10c); abuts floor 2 (16B.11?); underlies sub-floor fill (16B.13) under floor 3

NOTES

¹Wall phases are denoted by a letter suffix; e.g., wall 33A is the earlier phase, while 33B is later.

²Dominant masonry based on samples of 25 stones selected randomly.

Table 8.2 is a compilation of Burr's information on walls 33 and 37, integrated with stratigraphic data on the associations of the walls, builders' trenches, and floors. Analysis data revealed at least two wall construction phases (designated A and B) and a later repair phase (C). The term "construction phase" as used here refers to an extensive process that involved the demolition and rebuilding of upper courses, while "repair phase" refers to the replacement of a smaller number of stones, often to reinforce a corner. The A phase was characterized by rough cut stones, *pierres froides*, and occasional river cobbles, while the B phase consisted predominantly of ashlar blocks. The bonding of walls 33A, 36, and 37A indicates that these were constructed as a unit, probably in association with floor 1. Repairs to the corner of walls 36 and 37B were made concurrently, judging from the bonding of the ashlar blocks in the northwest corner. The stratigraphic position of the builders' trenches and floor levels supports the basic outline of the wall data, but further indicates, not surprisingly, that new floors were laid more frequently than walls were rebuilt.

The B phase represents a major rebuilding episode. The strata associated with W37 show two builders' trenches (contexts 16A.5 and 16A.10A), presumably associated with two construction events. Although we expected to find a similar pattern in the W33 data, this was seemingly not the case. Burr's examination of W33 identified a masonry break at +54 cm., but there appeared to be only one fill episode associated with the builders' trench (context 16C.10b). The width of the trench, however, bows out above floor 1, and what seems to be a floor 1 paving stone has fallen into the wider section. This suggests that the upper, wider segment was re-dug when the wall was rebuilt. Presumably the fill in the later trench would derive from the earlier one and the two fills would thus be indistinguishable. If this was this case, context 16C.10b can be divided into two sub-contexts – a lower trench (context 5b) that was associated with W33A and floor 1, and an upper one (context 10c) that extended down to floor 1 and was associated with W33b. Wall 99 is a stringer wall that divided the north building into two "rooms" of more or less equal size. The wall was built during phase B, and was apparently short-lived. The builders' trench (context 16B.10c) adjoins what appears to be floor 2 (context 16B.11?). Only two courses survived; these were later buried under the sub-floor 3 fill.

Trenching along W132 was conducted at least ten years before profile 16C was drawn. In the interim, significant slumping and erosion occurred along the face of the wall, hiding the masonry and obliterating any traces of a builders' trench. We could not locate any trace during our investigations of 2001 and 2009. This is unfortunate, as W132 is critical for assessing the relationship between the north and south buildings. The wall stood to a height of approximately +83cm., suggesting that it was in place at the time floor 3 was laid (also see Yoon 2010). An isolated block to the west may also be a remnant of W132, as it is in line with that wall. The surface of this block is at +103 cm., more or less equal to the elevation of the adjoining floor 4 pavement, so it is quite possible that W132 survived into the fourteenth century or later.

Stratigraphic sequence: The Harris matrix, figure 8.3, charts the stratigraphic sequence as reconstructed from the profiles. Based on the superposition of floor levels and the wall data, we can define four major building episodes, punctuated by a period of disuse between phases A and B.

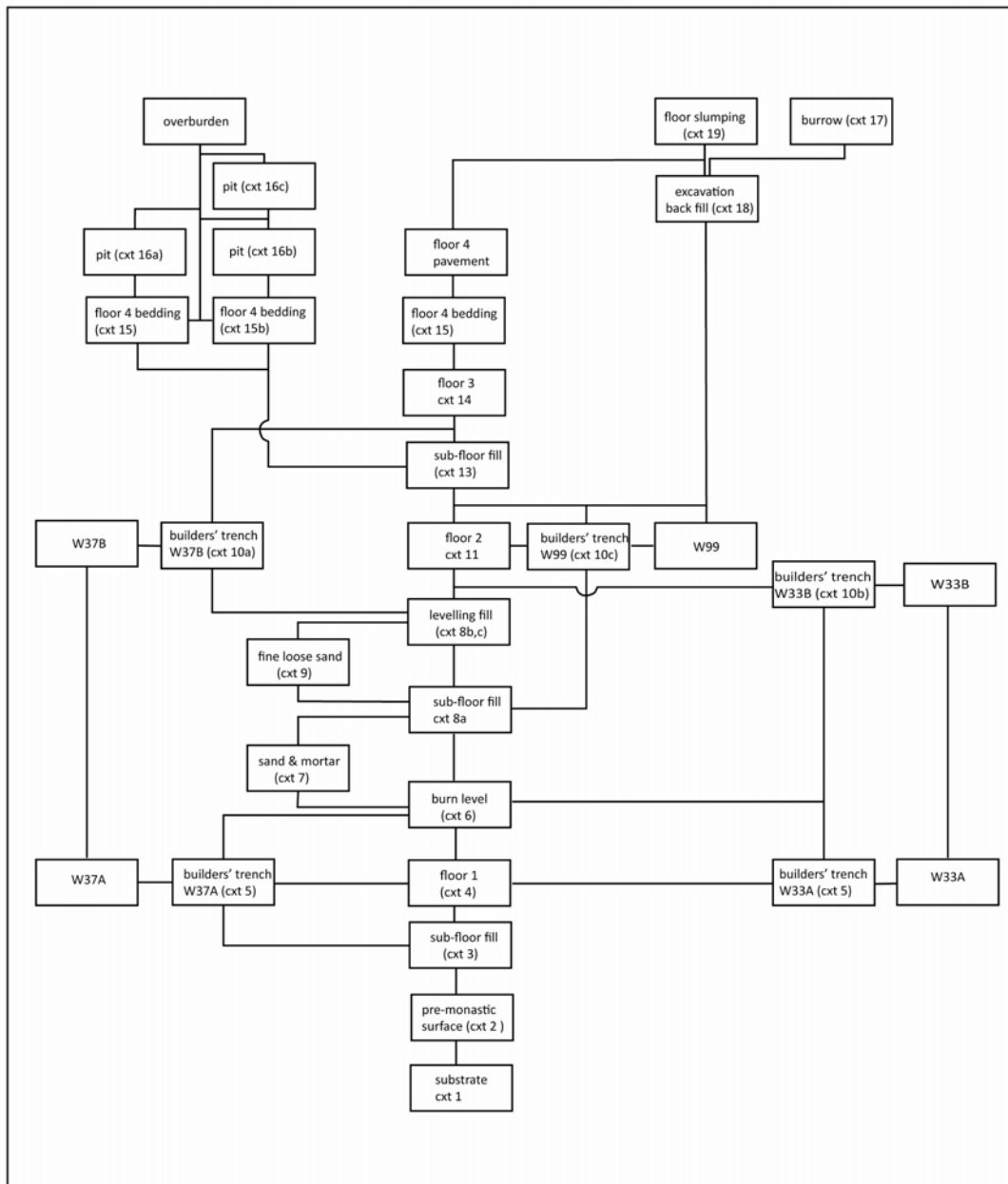


Figure 8.3 Harris Matrix, West Range North.

The A phase of wall construction is clearly associated with floor 1, present in profiles 16A and 16C, but missing in the center section of the building (profile 16B). The central section was most likely destroyed during the construction of W99. The position and morphology of the unidentified deposits north of the trench suggest that it cut through the pre-monastic surface, floor 1, and the burn level. Floor bedding continuity across the north building is further reinforced by the bonded walls 33A, 36, and 37A, built as a unit and defining an area that encompassed the entire structure. Floor 1, at roughly the same elevation and

stratigraphic position as EC-A floor 1, was overlain by a burn level similar to the EC-A/B burn levels in the Early Church and south range. A burn level was not identified in the southeast corner of the building (profile 16C), but here, too, an unidentified level above floor 1 (context 6?) appears similar in location and morphology.

The early north building was relatively small and situated directly west of the Early Church; its function is not known. Unlike the church, however, it was not immediately re-built. The burn level and floor 2 are separated by deposits that included destruction debris (context 7), what appears to be a pocket of wind-blown sand (context 9), and sub-floor fill levels (context 8). The builders' trenches for walls 33B, 37B, and 99 cut through these intervening deposits and are overlain by floor 2. This appears to be a major renovation episode that included the rebuilding of the upper sections of walls 33 and 37; the construction of W99 that divided the area into two spaces, and the installation of a floor. The elevation of floor 2 is similar to floor levels in Early Church C and the Late Church, as well as the initial building event in the west range south. In other words, floor 2 and the associated deposits may represent part of a building event that included the sacred precinct and the west range, a conclusion that would tentatively place it in the late twelfth century.

Floor 2 and W99 seem to have been relatively short-term modifications. An overlying fill deposit associated with a third floor bedding level extended over W99 and across the north building, re-establishing it as a single, undivided space. A final construction event is signified by floor 4 and perhaps the ashlar block repairs to the northwest corner. The small room to the north and W100 were probably added at this point as well.

Table 8.3 lists the *termini post quem* on pottery found in trench 16 (Yoon 2010), allowing us to add some absolute dates to the stratigraphic sequence. These are fairly straightforward, albeit incomplete. It appears that initial construction in the north building occurred after the sixth century C.E., probably in conjunction with the building of the Early Church. After a hiatus in activity, the structure was rebuilt during the early to mid-thirteenth century, at about the same time as the Late Church.

Table 8.3 *Termini post quem* on ceramics recovered from Trench 16.

<i>Context</i>	<i>Description</i>	<i>Terminus post quem</i>	<i>Associated deposits</i>
16A.2	pre-monastic surface	Roman	none
16A.4,6	floor 1, burn level	6 th century	builders' trenches W33A, 37A; bonded wall 36A
16B.10c	builders' trench W99	early 13 th century	cut through pre-monastic surface, burn level, fill under floor 2
16A.8a	fill under floor 2	1250	overlay burn level; under leveling fill floor 2
16A.10a	builders' trench W37B	1250 – 1400	cut through fill under floor 2 down to burn level
16C.13	fill under floor 3	1350 – 1500	floor 3

The stratigraphy of the south building (trenches 21, 35, 50, 53, 56, 60, 61, 95)

The southern sector of the west range, measuring about 7 by 16 meters, was most likely a single building that extended northward from W63 to the presumed juncture with the north building (W132). The building was apparently utilitarian in nature, with two sets of spatially distinct activity areas characterized by an oven complex in the south and remnants of a water control system in the north. A bath house/ privy complex was located to the west of the building, and a high floor to the south may be part of a refectory.

Figure 8.1 shows the locations of the ten profiles used in our analysis. Eight of the profiles were drawn over the course of the stratigraphy project (Dublin 2002; Dublin and Zaneri 2009); two were archival, drawn in 1986. Basically, there are two stratigraphic windows in the northeast and south of the interior, as well as a third group that was situated outside the building. The central area, unexcavated below the latest pavement level, is the only point of connection between north and south. The profile data are augmented by an intensive wall study (Burr 2009).

There was considerable post-depositional disturbance. A high ridge at the north end of the building was planted with cedars, the roots of which have penetrated the archaeological deposits. The ridge is quite steep, contributing to significant erosion, wall fall, and the mixing of deposits along the north baulk, also the case along the west baulk which adjoined the existing farmhouse. In addition, there has been extensive stockpiling of building material and stone robbing activities, which are visible in the stratigraphy outside the eastern and western walls. The area was used to house prisoners during World War II, thereby compromising or

removing archaeological levels above the late floor. Many of the remaining upper levels and features were removed before the onset of the stratigraphic study, and documentation is sparse.

The analysis presented here draws on a reassessment of the interior profiles and the development of stratigraphic associations with areas outside the building. Conjoining the profiles where possible provided insight on stratigraphic relationships across wider areas and a more thorough integration of the wall study, which in turn allowed us to tie the south building to the whole of the monastic complex.

West range south wall and floor data: The data on walls and floor levels, summarized in tables 8.4 and 8.5, provided information on the construction events and sequences in the south building. Burr's intensive wall study (2009) revealed masonry breaks that represented multiple building and repair events and required a renumbering of several walls. The new designations are shown on figure 8.1. The west wall of the south building was not aligned with W37 in the north building, and the southeast corner was not a continuation of either W63 or W64. To reflect these new findings, the walls were assigned new numbers (W144, 146, 148), along with the feature in the southeast corner (W149), the northern extensions of W61 (W145, 151), and the wall stub between W64 and the well (W152). All the exterior walls show evidence of repairs – corner reinforcement (W63/144); widening (W64, 148); and/ or buttressing (W144, 146, 148). Repair or rebuilding episodes were given letter designations; for example, W64A represented the original wall, while W64B was the designation given the later, wider wall. Remnants of builders' trenches associated with walls 63, 64, and 146 (see figures 8.4, 8.5, and 8.6) were also used to better understand the wall sequences.

Table 8.4 Wall data, west range south.

<i>Wall</i>	<i>Dominant masonry¹</i>	<i>Associated walls</i>	<i>Associated features</i>
63A	rough cut	bonded W144	builders' trench
63B	ashlar corner	bonded W144B; abutted W149, buttress W150	builders' trench, pavement floor, oven
144A	rough cut	bonded W63	unclear
144B	ashlar corner	bonded W63; abutted W146 & 61	oven & privy complexes
146	Ashlar	abutted W144, W145, buttresses W37E, F	builders' trench, oven complex
148B ⁴	Ashlar	bonded W61, abutted W64, 149	oven complex, door sill
148C	Ashlar	abutted W148B, buttress 150	entryway to south (refectory?)
61	ashlar, rough cut	bonded W148, 145, 151; abutted W64, 144	oven
64A	rough cut	abutted W152	builders' trench, floors 1 & 2
64B	ashlar	abutted W78, 148, 151, 152	conduit, oven complex

NOTES:

¹Term refers to stone finishing. "Rough cut" includes *pierres froides* and fossiliferous limestones; ashlar are all fossiliferous limestone.

²The "oven complex" consists of walls 61, 62, 145, and 151.

⁴W148B designation corresponds to B phase designations in other walls. There is also an additional late phase (148C) that entailed widening along the east face and buttressing at the corner with W63.

Table 8.5 Floors, west range south.

<i>Surface</i>	<i>Trench context</i>	<i>Description</i>	<i>Elevation</i>
floor 1	35.5, 21.5	pale yellow to pale brown mortar (2.5Y 6/4, 7/3; 10YR 6/3)	+70
floor 2	35.6	light brownish-gray mortar (2.5Y 6/2)	+78
floor 3 bedding	53.7	light gray mortar (2.5Y 7/2)	+111
floor 3 pavement ²	pavement	ashlar blocks	+119 - 135

NOTES

¹Surface slopes down from south to north; the figure given here is a mean value.

²Pavement levels include the recorded elevations for the south floor (figure 8.4) and the oven platform.

Floor levels were not well represented. A relatively high pavement (floor 3) extended across much of the building and the area south of W63 (figure 8.4), and two earlier floor bedding levels were found in the northeast corner of the building. Figure 8.5 illustrates the stratigraphy in that northeast corner, including the floor bedding levels, which are at the same elevations as floors 2 and 3 in the north building. There are no higher floors in this section, although much of the area above floor 2 was destroyed by later activity.

Walls 63A and 144A were bonded, built as a unit relatively early in the construction sequence. Both walls were built of rough cut stone masonry. In the southeast and southwest corners, however, ashlar blocks later replaced the original masonry, presumably to reinforce the walls. Figure 8.4 shows the stratigraphy inside the oven enclosure and continuing across W63 and the south pavement (trenches 61 and 53). The profiles are slightly offset, but two builders' trenches associated with W63 are clear. Context 61.3, within the oven enclosure, is associated with the corner reinforcement. The trench was cut into a sandy deposit that contained a high density of faunal remains and charcoal – perhaps a cooking surface that pre-dated the oven. Further east, it also contained concentrations of stone and tile rubble, most likely post-depositional resulting from the demolition of the overlying oven (Dublin and Zaneri 2009). The trench was cut down to pre-monastic surface at a level with the replacement ashlars and the upper levels of the fill in the south builders' trench (contexts 53.3-6). This latter fill was stratified, the basal deposit (context 53.3) below the level of the repair trench and almost certainly associated with the original construction event, the upper levels (contexts 53.4-6) cut into what appears to be an existing ground surface (context 53.2). The floor bedding (context 53.7) and pavement of floor 3, directly overlying the trench fill, are associated with this apparent second building episode.

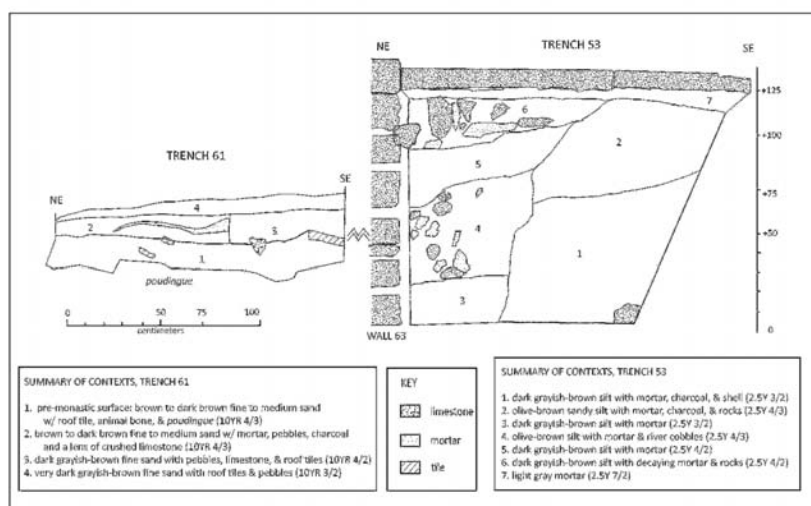


Figure 8.4 East baulks of trenches 61 and 53, associated with W63 and the oven complex.

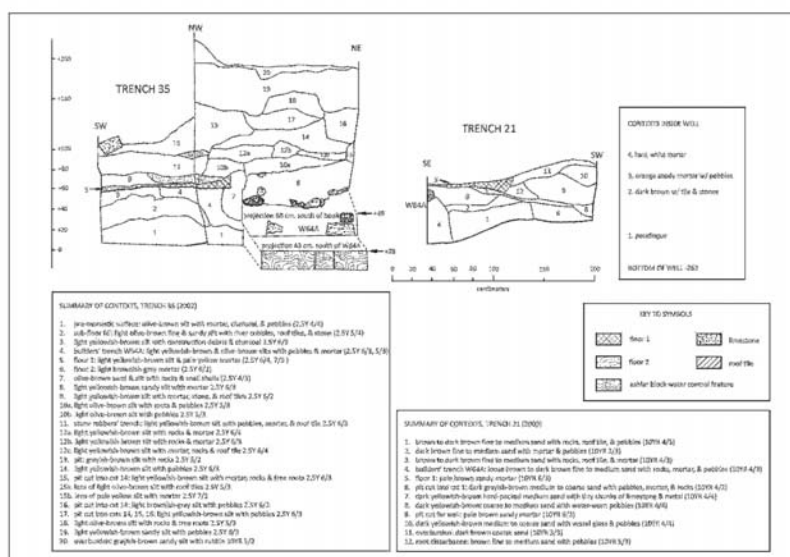


Figure 8.5 Profiles along W64A in the northeast corner of the west range south building.

Thus, according to our reading, the “B” phase represented a re-construction of the south end of the building, including an apparent extension northward. The ashlar block walls 146 and 148 were abutted to the earlier walls 144 and 63 respectively. W148, bonded to the oven platform (W61/145/151), was later made wider along the east face and a buttress was added at the southeast corner of the building. A door sill at the W148/ W61 juncture provided access between the oven enclosure and the space to the east, while a second doorway accessed the long narrow building to the south. These additions created a cooking area that was connected to the presumed refectory. If the earlier phase of the south building had been a single structure, we would have expected to find evidence of “A” phase construction in the two extension walls (146, 148), but we did not. W146 was built of ashlar rising courses set on rough cut footings; it is not clear whether the footers were part of an earlier wall, but it is quite clear that W146 post-dates W144. The two walls are abutted and the base of W144 was deeper than that of W146. The W146 builders’ trench directly underlay the abandonment/ destruction levels.

In the absence of absolute dates, we can only speculate on the timing of this event, but it was probably toward the end of the thirteenth or the beginning of the fourteenth century. A *terminus post quem* on pottery recovered from the surface cut by the phase “B” builders’ trench (context 53.1) yielded a date of 1225 C.E. The interior builders’ trench (context 61.3) underlay a deposit of fill that contained spolia from a Romanesque cloister (B. Stoddard, personal communication 2009). Assuming that the early cloister was demolished at the time that the new one was built, this would place the renovation at some point between the early thirteenth and the fourteenth centuries.

In the northeast corner of the building, three segments of W64 were recovered. The southernmost section was abutted by W148/61; it extended about three meters northward where it was cut by a drainage conduit (W78). The central section, four meters in length, ran north from the conduit and was faced with ashlar at its north end. The northern segment consisted only of a wall stub in the baulk of trench 35 (figure 8.5). The wall was faced on the west with rough cut stones and on the east with ashlar that were abutted to the earlier east face. The “A” phase of W64 most likely formed the northern boundary of the west range south. As the builders’ trench (figure 8.5, context 4) indicates, it was associated with floor 1 (figure 8.5, context 5). This floor, directly overlying a band of sub-floor fill and the pre-monastic surface, was the earliest construction activity in the immediate area, with a secure *terminus post quem* of 1250 C.E. Conflicting, seventeenth-century dates on ceramics from floors 1 and 2 and the builders’ trench are not congruent with their stratigraphic position. These deposits were in an area highly prone to fallout off the baulk, and the late *termini post quem* are most likely the result of post-depositional disturbance. The elevation and mortar description of floor 1 are quite similar to those of floor 2 in the north building, a deposit that yielded a *terminus post quem* in the mid-thirteenth century.

W64A was later made wider by adding ashlar courses to the east face, apparently in conjunction with the construction of the conduit, W78. The conduit builders’ trench yielded a *terminus post quem* of 1300 C.E., and the large ashlar facing stones at the intersection of W64B and the conduit were so tightly abutted that they must have been built concurrently (Burr 2009), thus the dating of the “B” phase. Wall 64B was apparently terminated about 4 meters north of W78, where it was faced with ashlar. There is no evidence of W64 to the north, where the line was cut by a deep masonry feature most likely associated with the water control system.

Features: Three sets of features were associated with the south building – an oven complex, a water control system, and a lavatory with a privy. All were excavated prior to the onset of our study. These, however, are included here because they provide information on the function of the south building and activities over the course of the monastic occupation. Each set of features is spatially clustered – the water control features in the north end and cooking facilities in the south. The lavatory enclosure is abutted to the west wall.

A semi-circular stone oven was excavated and removed prior to our research, and we were unable to locate any notes or drawings pertaining to this excavation. The oven (W62), measuring about 1.5 meters in diameter, opened onto a rectangular hearth platform (W65), which was built in conjunction with W148, probably relatively late in the monastic sequence. The enclosure opened into the space to the east of W148 and from there into the long narrow building to the south, probably a refectory. We were able to record the stratigraphy under the oven (Dublin and Zaneri 2009:figure 2), which included the pre-monastic surface (figure 8.4, context 2) and an overlying deposit containing considerable building rubble (figure 8.4, context 3).

At least some of this rubble can be attributed to post-depositional disturbance related to the excavation of the oven, but the disturbed level may also represent the remnants of a previous cooking surface. Unfortunately, ceramic dates are not available, but screened samples yielded relatively high densities of faunal remains, as listed in table 8.6. The table includes deposits from the oven enclosure and the area directly adjacent to the well. The highest densities include the two fill levels in trenches 53 and 21, and a trash pit adjacent to the well. Not surprisingly, floor 1 yielded a relatively low density, probably because it was swept frequently. In general, there were high numbers of fish remains, both bones and scales (Kohler 2012). Although this is related to the fact that the deposits were screened, it still attests to the high use of marine resources in this littoral and riverine environment.

Table 8.6 Density of faunal remains from the interior of the south building.

<i>Context(s)</i> ¹	<i>Location</i>	<i>Count</i>	<i>Density</i> ²
P31/32.4	pre-monastic surface, oven enclosure	62	6.2
P31/32.24	fill, oven enclosure	177	17.7
P31.3	builders' trench 63B, oven enclosure	28	5.6
35.3	well area	22	4.4
P35.5,7,9	fill under floor 1, adjacent W64A	152	10.1
35.8	builders' trench W64A	45	9.0
35.2	trash pit adjacent to well	90	18.0
P35.10	builders' trench well	44	8.8

NOTES:

¹Profile and context numbers are from Dublin and Zaneri 2009, figures 2 and 8.

²Faunal densities are expressed as number of fragments per liter. Samples contained five liters.

The water control system in the northern end of the south building included two clearly defined features, a well/ cistern (feature 73) and a stone-lined conduit (W78), and two possible features, a configuration of ashlar blocks in trench 35 (figure 8.5) and an enigmatic, trough-like feature situated at the north end of W 146.

The well was dug into the substrate to a depth of about 2.5 meters (field notes 1986), at or close to the level of the water table. The depth suggests that the feature tapped into the ground water and also captured surface water draining off areas to the east. The well housing consisted of several courses of stone surmounted by a cross lintel. A builders' trench extended across the west side of trench 21 (figure 8.5, contexts 21.6, 9-10). The upper levels (contexts 21.9-10) were cut through floor 1 and separated from the lower level (context 21.6) by a sloping band of extremely compacted sand that adjoined a small pit containing an abundance of water-worn pebbles. The stratigraphy suggests that the well was initially dug before floor 1 was laid, as the lower builders' trench cuts through the sub-floor fill. This would place construction before 1250 C.E., based on the *terminus post quem* associated with floor 1.

The compacted sand is directly under floor 1. It appears to be water-deposited, perhaps drained off higher surfaces to the east or created by seepage under floor 1. The deposit culminates at the pebble-filled pit, which formed part of a filtration system for the well or represented flow off the hard-packed surface. The upper levels of the builders' trench overlie the compacted surface and the pit, and appear to represent a later building event, perhaps to accommodate drainage from the conduit(s).

This raises a question as to the connectedness of the various water control features. Was there a "system" of conduits that drained into the well? The south conduit, W78, was clearly contemporaneous with W64B (Burr 2009). The W78 builders' trench (figure 7.4, context 15; page 51 above) was cut into what appears to be a deposit of water-laid silts (context 16) between

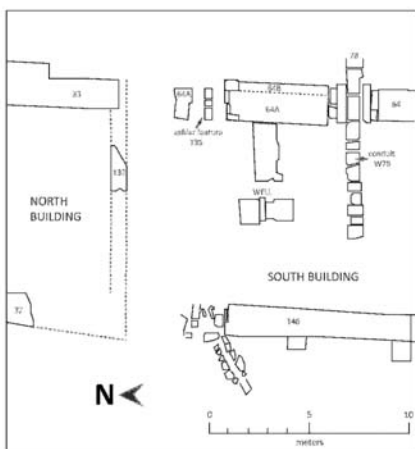


Figure 8.6 The conjectural layout of the water control system.

floors 1 and 2 in trench 56, east of the west range. This indicates that the water problem noted in trench 21 had continued, perhaps justifying the construction of channels to direct flow off surfaces to the east. The builders' trench yielded a *terminus post quem* of 1300 C.E., providing a date for the construction. Its eastern and western termini were not visible, but the channel clearly originated east of W64 and extended west at least as far as a line roughly parallel to the well. W64B was faced with similar large ashlar at its north end, suggesting that the wall was terminated at that point, perhaps by a similar juncture with a second conduit represented by the ashlar feature at the base of T35. A possible third conduit, this one associated with the lavatory, is situated at the north end of W146, which wall terminates in a large ashlar block parallel to the north end of W64B. The feature itself is trough-like and certainly resembles a conduit, but it is unstudied. Figure 8.6 presents a sketch of the possible water control system. Theoretically, the two eastern conduits controlled runoff from the cloister, directing water flow into the well, while the southern conduit drained the privy area.

A circular privy in an enclosure bounded by walls 59 and 60 was abutted to the southwest corner of the south building. The area was excavated prior to onset of our study, and here too we were unable to locate any notes or drawings on the excavation. The rectangular enclosure, about 2 meters by at least 6 meters, was apparently entered from the south, as a door sill and hardware are still extant in wall 59; whether there were additional entry points is not known. It was not uncommon in medieval monasteries to cluster privies and lavatories in rectangular sheds that were abutted to the outer walls of buildings (Horn and Born 1979), and it is likely that this was the case here.

Stratigraphic sequence and summary: The Harris Matrix, figure 8.7, charts our reconstruction of the stratigraphic sequence in the south building. What is immediately apparent is that the early sequence in the south building is decidedly different from that in the north. There were no early floor or burn levels, suggesting that the south building was not developed during the Early Church A/B phase. It is difficult to coordinate events across the building, since the only existing points of connection are the pre-monastic surface and the late pavement, floor 3. Available *termini post quem* for stratigraphic contexts, listed in table 8.7, were useful in developing a partial sequence. However, the timing of events, especially during phases "B" and "C" remains unclear.

Table 8.7 *Termini post quem*, south building and environs.

<i>Trench.context¹</i>	<i>Description</i>	<i>Terminus post quem</i>
35.7	rubble associated with destruction W64A	1600
35.8	rubble associated with destruction W64A	1500
35.6	floor 2	1600 ²
35.5	floor 1	1250
35.5	floor 1	1600 ²
35.4	builders' trench W64A	1250
35.4	builders' trench W64A	1600 ²
35.1	pre-monastic surface	800
53.1	ground surface cut by builders trench W63A	1225
56.1	pre-monastic surface	1100
56.5	sub-floor fill	1000
56.16	water-deposited silts between floors 1&2	1250
56.15	builders' trench conduit W78	1300

NOTES:

¹Trench 53 is south of W63; trench 56 is east of W64; both are outside south building, but are included here because of their proximity.

²Late *termini post quem* are not congruent with stratigraphic position. The strata were at the intersection of profiles 2 and 2A in an area prone to soil mixing, and are thus the likely result of post-depositional disturbance.

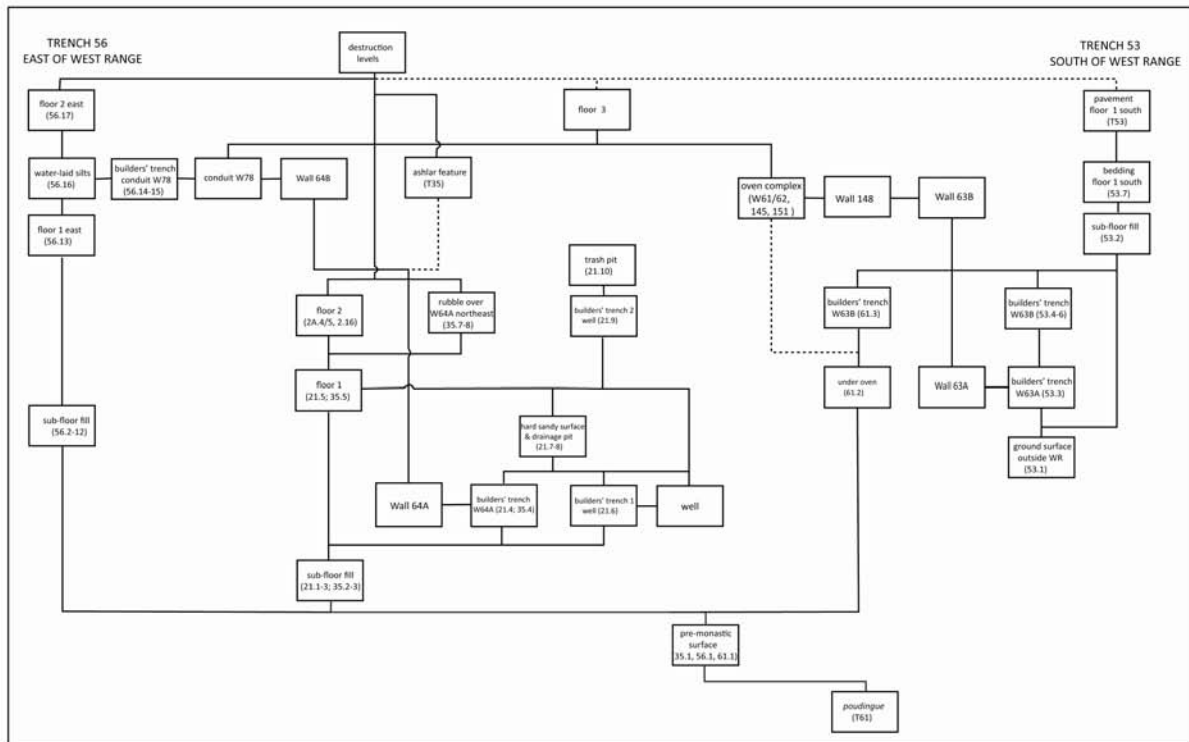


Figure 8.7 Harris Matrix: Stratigraphic sequence, west range south.

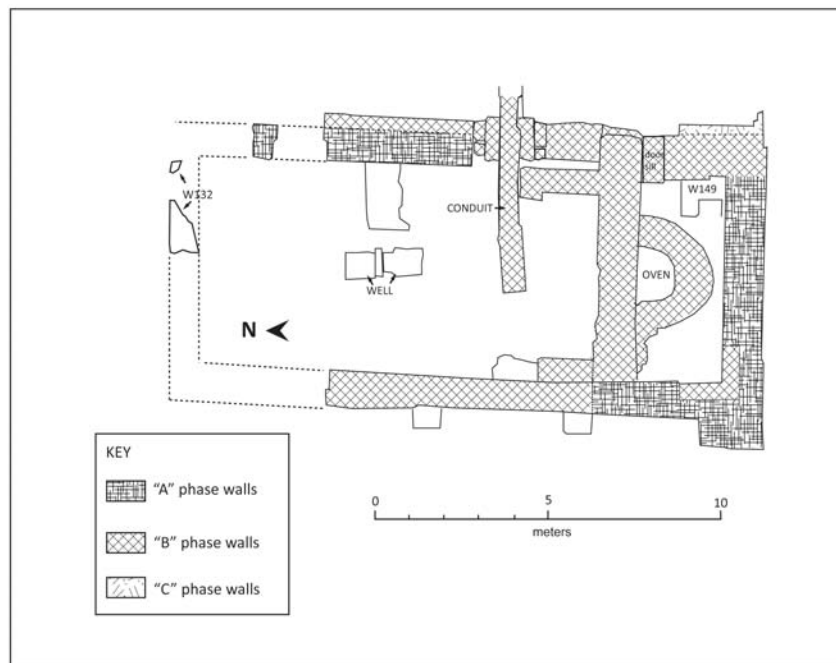


Figure 8.8 Wall phases, West Range South.

Based on the floor levels, stratigraphic relationships, and changes in masonry finish and style of walls, we can identify at least three major construction events. In accord with common usage on the site, each has been given a lettered phase designation from "A" through "C." Figure 8.8 presents our reconstruction of the wall phasing. The earliest construction was probably quite simple and basically utilitarian. It included the well, W64A, and floor 1 at the north end, and at the south, the bonded walls 63A and 144A. It is possible that there were two structures at this point – a cook house and a well house.

This, however, is speculative, as the building configuration is incomplete. Floor 2 also appears to be associated with W64A. Both floors are similar in elevation and mortar color to floors 2 and 3 in the north

building. The *termini post quem* for floor 2 north, floor 1 south, and the surface associated with the W63A builders' trench range from 1225 to 1250 C.E., placing the "A" phase in the early to mid-thirteenth century. By the end of this phase, the basic configuration of the south building was in place, including the spatial demarcation of the two activity areas.

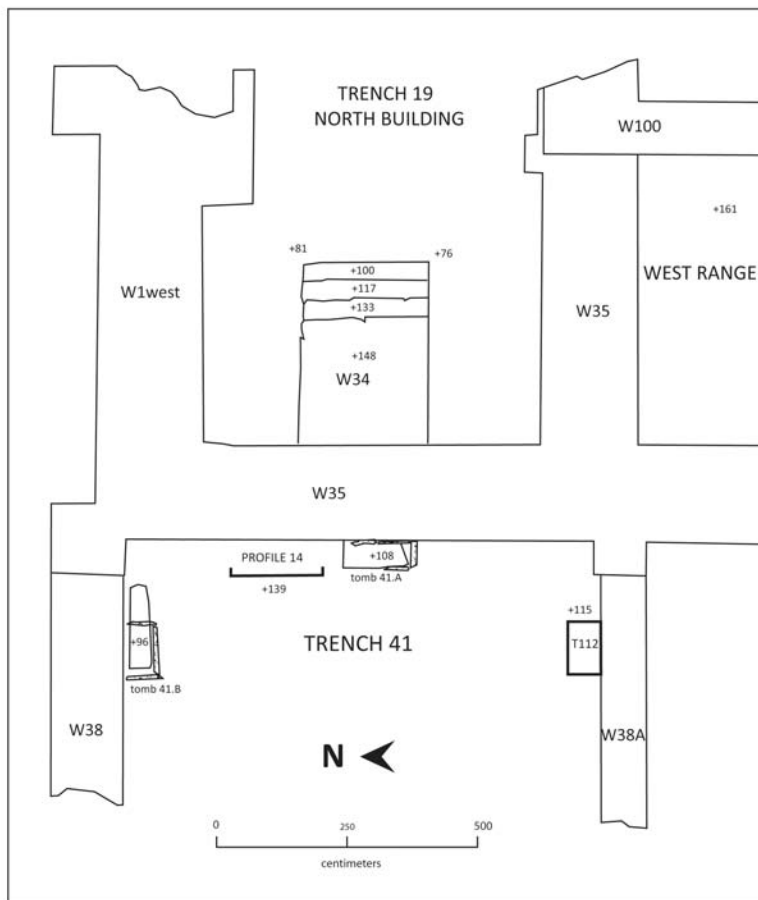
Later wall renovations were accompanied by the installation of floor 3, an upgrade to the water control system, and the construction of the oven and oven enclosure. Because of the lack of connection across the building and the scarcity of absolute dates, it is difficult to distinguish between phases "B" and "C," especially in sequencing the outer walls. Floor 3 was laid over the conduit, W78, therefore post-dating that feature and W64B. Floor 4 north building and the pavement south of W63 are at the same level, suggesting that all three floors were laid at the culmination of a major building event that encompassed the whole of the west range. Unfortunately, very few dates are available for this construction, although a *terminus post quem* on the builders' trench for the conduit provides a ceramic date of 1300 C.E., placing at least the upgrade to the water control system in the early fourteenth century, contemporaneous with the construction of the cloister. At the south end of the west range south, the cooking facilities were revamped and the enclosure walls reinforced. This most likely occurred slightly later than the construction in the north end, since W64B is overlain by the oven enclosure and W148. The latest construction event appears to be the widening of W148 and the addition of a buttress to the southeast corner. This final configuration of the south end of the building resulted in a cooking area that opened onto the east and south, providing a connection to the long narrow structure, probably a refectory, to the south. Phase "C" was directly overlain by the rubble levels that signified the abandonment and destruction of the abbey.

The work in the west range revealed the presence of two apparently unconnected structures, probably separated by W132, as well as a portion of a third building on the south, and a lavatory enclosure on the west. The functions of the north building and the small room to its north are not known. It is situated along an east/ west axis that included the sacred precinct, suggesting that it served a non-utilitarian role, and its position at the western end of that axis denotes a possible connection to the lay public, since the west was considered the direction associated with the outside world (Duby 1988:41). The south building, on the other hand, was clearly utilitarian. Its position and connectedness appear to be associated with the domestic life of the abbey and its residents. It opens onto the southern complex of the monastery, typically the monastic living quarters (Duby 1988:40). Hypothetically then, the west range, in particular the south building, embodies the demarcation between ritual space, signified by the churches and cloisters, and domestic space, the living areas for the monastery's inhabitants. Various spatial models (Duby 1988; Hillier and Hanson 1984; Horn and Born 1979; Turner 1974) lead us to suggest that the West Range North and the north building served as social space, a meeting place of laity and the monastic community.

9. OUTSIDE THE WEST RANGE: TRENCHES 19, 41, 112

If we consider W35 the western border of the built areas associated with the Late Church, trenches 19 and 41 incorporate what might be considered "inside" and "outside" spaces - the west end of the north building (T19) and the area immediately "outside" that building (T41). Our research sought to understand the differences between these different kinds of spaces. Because of an abundance of human remains on the surface of this heavily trafficked area, we also received permission to excavate the endangered burials (Dublin and Yoon 2004).

Trench 19 was excavated in 1973, exposing the two extension walls west of W35 (W38 and 38A) and two tombs designated 41-A and 41-B. The tombs were abutted to walls 35 and 38, indicating that the interments occurred after the construction of the two walls. There was very little detailed stratigraphic information relating to the original excavation, but a standing baulk remained to the west of W35. This baulk was recorded in 2004, along with the stratigraphy of the newly opened trench 112. The plan view, figure 9.1, shows the locations of the features in the area and the 2004 drawings. In accord with our question regarding "inside" and "outside" spaces, we have included a discussion of both trenches in this report.



W35 is not aligned with the eastern sections of the north building, indicating that this segment was built at a different time. The wall and attached buttresses are bonded, thus the entire configuration represented a single building event. A gap of about 5 meters exists between W1B and the northeast end of W35, perhaps an entrance into the building, although this is unconfirmed since both walls are broken off. This section of the building was distinguished by the presence of a raised platform (W34) abutted to the east face of W35, perhaps an altar or dais. The top of the platform was reached via three steps. Although the pavement and floor bedding levels no longer exist, a reconstruction based on the relative elevations of the steps suggests that floor would have been more or less at the same elevation as floors further east in the building, roughly +90 cm. asd.

Figure 9.1 Plan view, trenches 19, 41, & 112 showing locations of profiles.

It is not clear whether trench 41 was an actual “outside” space, a courtyard, or a roofed space. The area is defined by the two extension walls, but the extent of the use space is not clear, nor do we know whether the area was paved. The profiles shown in figure 9.2, provide a view, albeit incomplete, of the stratigraphy. The earliest recorded stratum, a compact silt, (figure 9.2, context 112.9), was apparently a buried ground surface. This surface was in place when W38A was built, since the builders’ trench for that wall (context 112.6) is cut into it. W38 and 38A were abutted to W35 and thus built after the north building had been completed. If that latter building was entered from the north, which seems likely given that the platform (W34) would have blocked much of the west wall, the “outside” area (T41) would have had no access from either the north building or the west range. Once the extension walls were in place, 20 to 30 centimeters of fill (contexts 112.3-5; 41.7) were deposited, raising the surface of this now-enclosed space. The fill, deposited in narrow bands along the south side and as a bulk deposit in the northeast corner, contained construction debris, but also concentrations of lime, perhaps used to speed decomposition (Dublin and Yoon 2004:10-11).

The upper layers of fill were cut by what can be best described as a burial zone that contained concentrations of human bone, including at least two partial skeletons as well as numerous scattered and disarticulated fragments of human remains visible on the existing surface (Dublin and Yoon 2004). The elevations of the two slab tombs (41-A and B) abutted to walls 35 and 38 fall within the burial zone and they were most likely part of the complex that included the partial skeletons. Unlike the scattered remains found across the surface of the area, these apparently represent formal interments, suggest that the area was established as a cemetery at some point in the monastic history. A *terminus post quem* on sherds recovered from the burial fill (context 112.2) was 1300 C.E., which suggests a relatively late date, especially considering that

the sherds were secondary, rather than primary depositions. The disarticulated remains were jumbled in with the more formal burials and were likely re-interred later. This burial zone may have extended well outside the excavation area as far north and west as the existing road, where at least six individuals were accidentally discovered during the excavation of a farm trench. These burials are documented in a preliminary report (Anthony 2003).

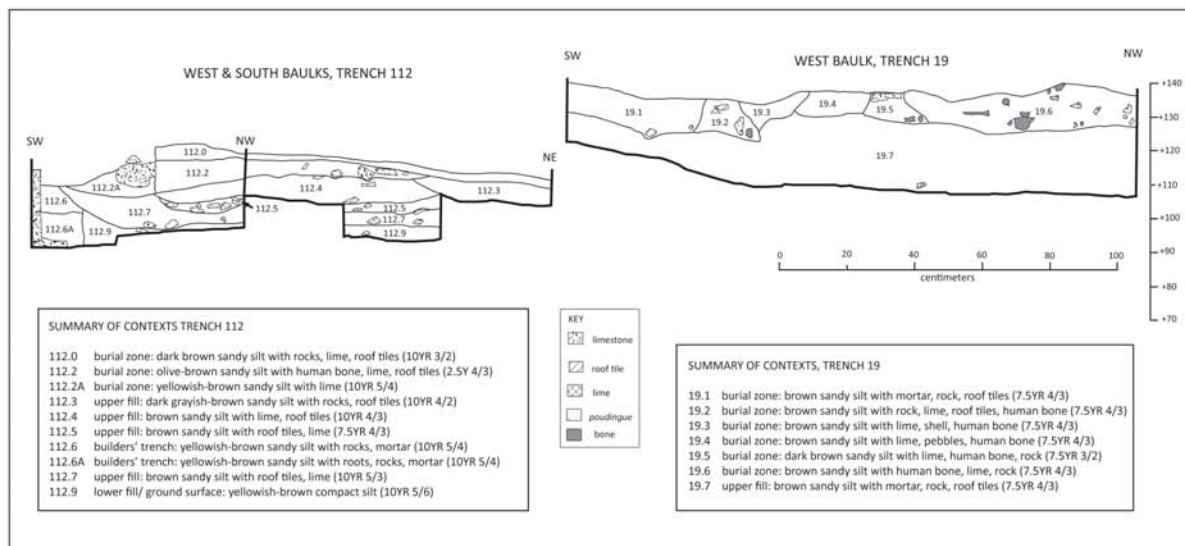


Figure 9.2 Profiles, west & south baulk of trenches 112, west baulk of trench 19.

Stratigraphic sequence and discussion: The stratigraphic sequence is quite straightforward, related in part to the paucity of data for this area. The Harris Matrix, figure 9.3, was built on stratigraphic information recorded in the two profiles, figure 9.2; the abutment patterns of walls 34, 35, 38, and 38A; and the elevations of surfaces and pavements in the vicinity.

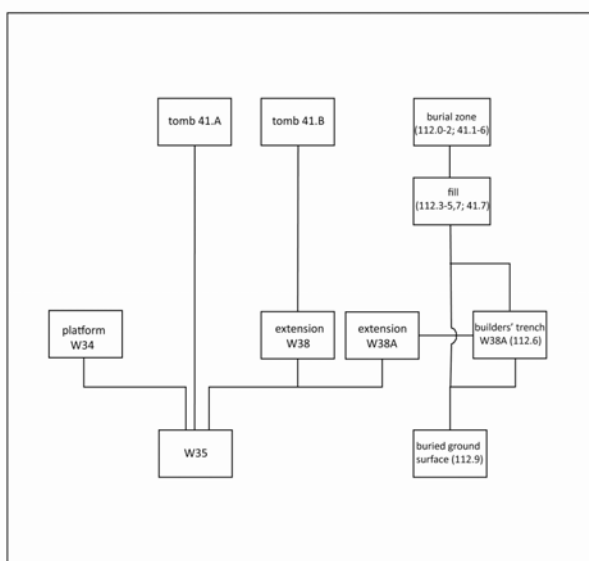


Figure 9.3 Harris Matrix, trenches 19 & 41.

The wall abutment patterns clearly indicate that W35, the west end of the north building, was the earliest construction in the area. This wall is abutted to the north end of the west range and was probably built concurrently to that structure or slightly later. The stepped platform (W34) was built after W35 had been completed. The possible entryway through the north wall meant that trenches 19 and 41 would have existed as unconnected, distinct spaces. It is not clear whether W35 built on the buried ground surface (context 112.9), but the extension walls 38 and 38A certainly were. These two walls were abutted to W35, and the builders' trench for W38A is cut into the buried ground surface. These two walls defined an area that can be described as "outside" the sacred precinct, and fill was deposited within the thus demarcated space. The bounding walls and the fill imply that the area was explicitly

prepared for future use by raising and perhaps leveling the ground surface. Was it to be an extension of the cemetery? We will not know this for sure, but the preparation and subsequent formal burials suggest that this was the case.

Absolute dates are not available, but the ceramic *termini post quem* listed in table 9.1 suggest (perhaps counter-intuitively, judging from a glance at the dates) that both the preparation and the interments were relatively late in the monastic sequence. First of all, it should be noted that virtually all the pottery was redeposited. The early *termini post quem* are, therefore, somewhat misleading, and it is more useful to consider the three later dates – 1250 C.E. associated with the burial zone across the area. Again, we are looking at redeposited sherds, but the later dates provide a more accurate assessment of the burial levels during the Late Church period or after.

Table 9.1 *Termini post quem*, trenches 41 and 112.

<i>Trench.context</i>	<i>Description</i>	<i>Terminus post quem</i>
41.1	burial zone	700 B.C.E.
41.3	burial zone	1250 C.E.
41.4	burial zone	300 B.C.E.
41.5	burial zone	350 C.E.
41.6	burial zone	400 C.E.
112.1A	burial zone	1250 C.E.
112.2	grave fill	900 C.E.
112.2	general burial zone	1250 C.E.
112.3	upper fill	700 C.E.
112.4	upper fill	800 C.E.
112.5	upper fill	1250 C.E.
112.6	builders' trench W38A	prehistoric
112.7	upper fill	500 or 700 C.E.
112.8	upper fill	500 C.E.
112.9	buried ground surface	50 B.C.E.

10. ABANDONMENT AND DESTRUCTION OF THE MONASTERY

The historic documentation records that the monastery was secularized in 1537, that its ruins were burned in 1704, but also that the population had dwindled significantly by the onset of the sixteenth century (Rivals 1937). Although much of the site was stripped down to monastic levels without recording the post-monastic deposits, in the west and south ranges, these deposits remained in the uppermost levels of the existing baulks. They were identified primarily by the presence of a high density of building rubble. Soil matrices were predominantly light-colored brownish-yellow sandy silts that derived from high concentrations of crumbled mortar, or darker grayish-browns and browns that signified root intrusions. Abandonment/destruction levels were recorded in profiles of trenches 35 and 60 in the west range; trenches 56 and 100 in the west gallery of the Late Cloister; and trenches 88, 103, 104, and 105 in the cloister garth (Dublin 2002; Dublin & Zaneri 2009). These deposits are treated separately from the monastic deposits since they represent a significant shift in land use.

We applied an ethnoarchaeological model (Rothschild et al. 1993) to describe the various phases of abandonment and destruction in a masonry structure. The characteristics of each phase were then applied to the stratigraphy in order to explain the process as it applied to Psalmodi (Dublin and Zaneri 2009:27-29). That information is summarized below, table 10.1.

At Psalmodi, the model is applicable only in areas where deposits are described well enough so that discrete levels can be distinguished. This criterion eliminates trenches 103 to 105, where the upper deposits are described simply as “rubble.” Thus, our discussion will include only trenches 35, 56, 60, 88, and 100, where we profiled standing baulks. All had been subjected to very high levels of post-depositional disturbance, including bioturbation, erosion, and activity associated with farming and the installation of utilities.

Table 10.1 Depositional characteristics of abandonment and destruction in masonry structures.

<i>Phase</i>	<i>Structural characteristics</i>	<i>Stratigraphic indicators</i>
1. stone robbing ¹	removal of re-usable stone in walls & floors	mixed or mottled loose fill with small debris
2. early abandonment	erosion of pointing, cracks in masonry, leaks into interior	relatively clean wind- or water-deposited soils; small fragments or decayed mortar
3. collapse	deteriorating structural integrity, especially in places where two materials meet; widening cracks, roof fall, some wall collapse	roofing materials, chinking stone, and mortar incorporated into soil matrix
4. destruction	fabric of structure compromised – total roof fall, partial or total wall collapse	high densities of unsorted building rubble
5. stockpiling ¹	removal of building materials	ordered piles of various building materials

NOTES:

¹These activities are not formally described in the model, but were present at Psalmodi during the monastic occupation into the post-monastic.

Stratigraphy: Table 10.2 lists the abandonment and destruction levels that we recorded. These have a reasonable level of integrity and are well enough described so that they can be assigned to the various phases. Overburden levels are not included as there is too much mixing to be meaningful.

Stone robbing occurred throughout the use of the monastery and after abandonment. Robbers' trenches were cut down to various floor levels, including the Late Cloister but also the intermediate floor and floor 2 in the west range south. At Psalmodi, undecorated paving stones were often removed for use in new construction, an example of expedient reuse. In other words, the monastery itself served as a source of building stone as one phase of construction replaced another, earlier one.

Table 10.2 Recorded deposits associated with the abandonment and destruction period at Psalmodi.

Trench.cxt	Elevation ¹	Description	Phase
35.8	+48 - +90	light yellowish-brown sandy silt with mortar (2.5Y 6/3)	destruction
35.10	+80 - +95	olive-brown sandy silt with roots & pebbles (2.5Y 5/3)	abandonment
35.12	+95 - +110	compact light yellowish-brown silt with rocks, mortar, & roof tile (2.5Y 6/3, 6/4)	collapse
35.13	+94 - +105	pit cut into 35.12: grayish-brown silt with rocks (2.5Y 5/2)	stone robbing
35.14	+100 - +120	light yellowish-brown silt with pebbles (2.5Y 6/3)	destruction
35.16	+105 - +140	pit cut into 35.14: light brownish-gray silt with pebbles (2.5Y 6/2)	stone robbing
35.17	+120 - +140	pit cut into 35.15 light yellowish-brown silt with pebbles (2.5Y 6/3)	stone robbing
35.11, 15	+78 - +145	pit cut into 35.17: light yellowish-brown silt with mortar, rocks, & roof tile (2.5Y 6/3)	stone robbing
35.18	+135 - +155	light olive-brown silt with rocks & tree roots (2.5Y 5/3)	destruction
35.19	+145 - +195	light yellowish-brown sandy silt with pebbles (2.5Y 6/3)	destruction
56.18	+106 - +118	light olive-brown silt (2.5Y 5/3)	abandonment
56.19	+100 - +135	light olive-brown sandy silt with roof tiles (2.5Y 5/3)	collapse
56.20	+130 - +168	pale yellow sandy mortar with building debris (2.5Y 7/3)	destruction
56.21	+165 - +185	light olive-brown sandy silt with stockpiled building stone (2.5Y 5/3)	stockpiling
60.7	+98 - +128	dark grayish-brown sandy silt with roof tiles, rocks, & mortar (10YR 4/2)	collapse
60.4-5	+110 - +140	brown to dark brown sand & silt with rocks, mortar, roof tiles, & flecks of charcoal (10YR 4/3, 5/3)	destruction
60.6	+102 - +131	pit cut into 60.4: grayish-brown sandy silt with mortar & roof tile (10YR 5/2)	stone robbing
60.3	+138 - +160	light gray limestone blocks (10YR 7/1)	stockpiling
88.10	+105 - +145	light yellowish-brown to olive-brown sandy silt with tiles, mortar, pebbles (2.5Y 5/3, 5/4, 6/3)	stone robbing
88.11	+120 - +145	light yellowish-brown to grayish-brown sandy silt with animal bone & rubble (2.5Y 5/2, 6/2, 6/3)	collapse/ midden
88.14	+125 - +185	light yellowish-brown to olive-brown sand with building rubble (2.5Y 4/3, 6/3)	destruction
100.12	+102 - +145	light brownish-gray and olive brown sandy silt with mortar & roots (2.5Y 6/2, 4/3)	collapse
100.13	+120 - +155	light olive-brown sandy silt with mortar (2.5Y 5/3)	stone robbing
100.14	+142 - +183	grayish-brown sandy silt with building rubble (2.5Y 5/2)	destruction

NOTES:

¹Elevation figures range from approximate lowest to highest points.

Figure 10.1, the juxtaposed profiles of trenches 56 and 100 outside walls 64 and 146 in the west range, presents a relatively complete post-monastic sequence. Deposits related to abandonment directly overlay the cloister floor bedding. Context 56.18, for example, consisted of a narrow band of silt with no cultural material. This fine-grained matrix probably sifted across the floor bedding once the building was abandoned and no longer swept. A period of long-term neglect, resulting in partial building collapse, created a surface characterized by hard-packed soil containing roof tiles, chunks of mortar, mortar dust, and some building stone (contexts 56.19 and 60.7, figure 10.1). The presence of a surface attests to the elapse of a relatively lengthy period of time between the onset of abandonment and the destruction of the remaining monastic buildings. Destruction levels (contexts 56.20, 60.4-5) consisted of a single thick deposit or several chunky deposits of light-colored sandy soil containing very high densities of building rubble. The light color is due to a high concentration of mortar dust in the matrix. In areas where there is considerable root penetration, the soil matrix tended to be grayer or browner. Contexts 56.21 and 60.3 are particularly interesting. They consisted of ordered rows of well-cut stone blocks that had presumably been removed from the ruins of the monastic buildings and stockpiled for later use. This activity signaled a final shift in land use during the abandonment/ destruction process as the former monastery moved from a ruin to a quarry for building stone. The stone stockpiles were situated on the east and west sides outside the west range, and they may well have extended across the entire area. The piles were probably larger at one point, but were substantially diminished by the removal of blocks for reuse.

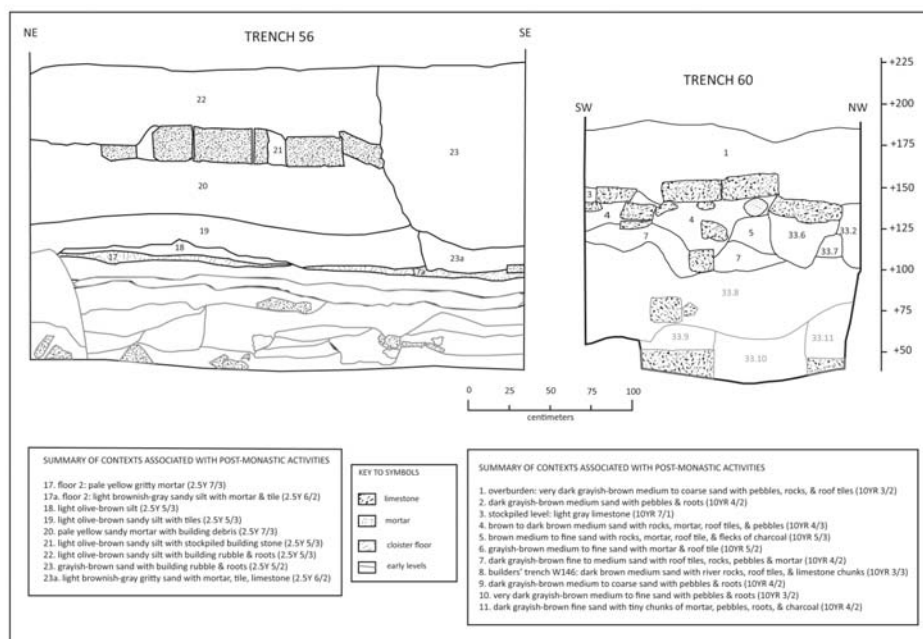


Figure 10.1 Post-monastic levels, trenches 56 and 60.

Collapse levels were distinguished from destruction deposits by the compactness of the soil, the tendency for inclusions to be relatively small, and the abundance of roof tiles and fragments. Both types of deposits were present in all our sampled areas, destruction levels overlying collapse levels. As table 10.3 indicates, *termini post quem* on the collapse levels fell within the fourteenth century C.E., while destruction levels were later, in the sixteenth and seventeenth centuries. The sherds found in these contexts were redeposited and therefore not indicative of use periods, but they are in accord with the stratigraphic record, as well as the model.

The stratigraphic record of abandonment and destruction in trench 35 is quite complex. The latest monastic levels are floor 2 and W64A. These were overlain by a large stone robbers' trench (context 35.11,15) and a hard-packed collapse level, which in turn was overlain by a series of smaller deposits and intercutting pits. The uppermost strata included the overburden and a thick destruction level at a more or less similar elevation as the stockpiled stones in trench 56. One area in trench 88 appears to have seen some domestic

Table 10.3 *Termini post quem* on sherds recovered from post monastic contexts.

<i>Trench/context</i>	<i>Description</i>	<i>Terminus post quem</i>
35.8	destruction level W64A	1500
35.15	stone robbers' trench floor 2	1300
35.19	destruction level	1600
88.10	stone robbers' trench intermediate floor	1300
88.11	collapse/ midden	1300, 1600 ¹
88.14	destruction level	1500
100.13	stone robbers' trench cloister floor	1500
100.12	Collapse	1300
100.14	destruction level	1850

NOTES:

¹The anomalous date of 1600 C.E. probably represents intrusive material that sifted down from the overlying destruction level.

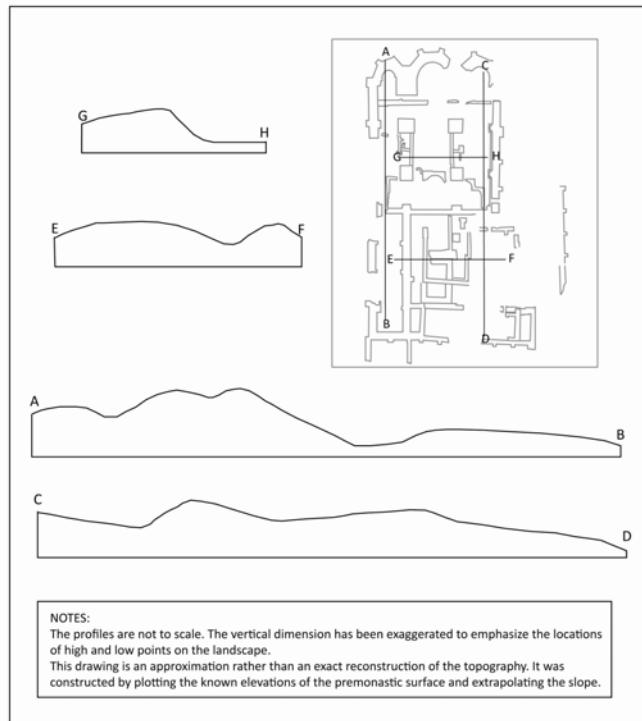
reuse after the abbey was abandoned. Context 88.11 consisted of four discrete deposits that directly overlaid the mortar bedding of the cloister floor. The deposits, which differed in soil matrices, were quite similar in inclusions – concentrations of animal bone and fragmentary building rubble characteristic of collapse deposits. These may have been remnants of stone robbers' trenches that were later used as midden pits for food refuse. With a collective *terminus post quem* of 1300 C.E. (but see note, above), the midden was most likely associated with the earlier post-monastic period.

In general, it can be said that the post-monastic strata at Psalmodi presented a complex record of a number of different activities rather than the “undifferentiated mass” often associated with abandonment or destruction related deposits. The process reflected in the disparate levels increased in intensity over time, the clean silt and stone robbers' pits of the early period giving way to active building deterioration, destruction, and finally the quarrying of building components.

11. DISCUSSION AND CONCLUSIONS

The stratigraphic research was useful in developing a relative temporal sequence across the excavation area. In part, the archaeological record confirmed previous conclusions based on architectural style, but it also provided new insights on transitions in the pre-monastic and monastic landscapes. These included a reconstruction of the original landscape and topography; the extent of the pre-monastic occupation; shifts in spatial structure during the Early and Late Church phases; and the organization of ancillary monastic space in the west range. This chapter outlines new findings, and suggests areas for future research. As always, there remain unanswered questions.

The stratigraphic coverage is spotty because we were confined to recording extant baulks and because of the high levels of post-depositional disturbance in areas where baulks had been exposed for a number of years. In addition, the archived drawings and field notes are incomplete. We considered archival material viable only if the vertical and horizontal proveniences were adequately recorded so that precise locations and elevations could be correlated to the site map and to our drawings. This criterion eliminated a number of drawings, as well as much unsystematic or imprecise information in the field notes. There are no absolute dates for the recorded levels or features, since we did not have sufficient funding for radiocarbon or thermoluminescence dating or for constituent analysis of mortars. Temporal approximations presented here rely on *termini post quem* on ceramics recovered during stratigraphic sampling (2002-08) and on a partial analysis of pre-monastic pottery found in trench 102. The artifact analysis was not completed, so our assessment of activities is based almost entirely on inferences drawn from the spatial distribution of features and the morphology and stratigraphic position of specific, readily identifiable, kinds of strata – most significantly floor levels and ground surfaces.



The pre-monastic landscape: The ancient topography of the excavation area was reconstructed by plotting the locations and elevations of the substrate and the pre-monastic ground surface (figures 3.3, 4.1; pages 10-11 above). The surface was low-lying, about 3 meters above sea level, and relatively flat. The area sloped down toward the east and south along a slight gradient, less than one meter. The higher points in the southwestern and northeastern quadrants probably formed the center of the *ilôt*. These areas contained the highest concentration of pre-monastic findings and the core of the Early Church, suggesting that relative elevation, although slight, was a factor in siting early occupation areas.

Figure 11.1 Approximation of the slope across excavation area.

The pre-monastic occupation: Prehistoric and Roman period material was scattered across the site, indicating sporadic occupation prior to the Late Ancient period. A concentration of Late Ancient features and artifacts was located in the northeast sector of the excavation area. The presence of three successive living floors, each associated with a different set of features, suggests that the occupation was multi-component, multi-functional, and more complex than earlier thought. The site location and the abundance of imported ceramics point to an economic role, perhaps as an entrepôt for off-loading trade goods (Renaud 2012). At least one comparable earlier site, Le Cailar, is known from the northern shore of the ancient *étang* (Py and Roure 2002). The *étang* and the Vistre River would have provided a water route from the Mediterranean to the settlement at Nîmes and the islet at Psalmodi was an ideal location along this route. The presence of two sets of tombs – a presumably early group of tile tombs and a second set associated by orientation with a pre-monastic structure – raises a question as to whether the site served as a sacred place before the monastery was founded. An answer, however, will require additional research on the collections.

Early Church: There are no absolute dates for the construction of the Early Church. The architectural style points to a late eighth century C.E. date (Dodds 1982, 1986; Dodds et al. 1989; Shaffer 2005), as does the historic documentation, despite historiographic problems. The floor level data support three, rather than two, major construction events (Trimble 1994). Phase A included the church itself and a small structure to the west of the nave. The church, the west building, and parts of the south range were destroyed, at least in part, by a fire that was stratigraphically represented by an ash level overlying the lowest floor. The fire may correspond to historic accounts of Saracen raids and the temporary abandonment of the monastery, but this cannot be confirmed without absolute dates. The church was rebuilt, perhaps in the early eleventh century (Dodds 1986), but the west and south ranges remained undeveloped until at least a century later. The stratigraphy demonstrates that the final configuration consisted of three apses, two large transepts, a nave, and what appears to be a narthex. There were no side aisles.

Late Church: The Late Church was built in two phases, altering the topography of the east end of the islet as well as the built environment. The medieval builders used remnants of the earlier landscape – bulky materials culled from the destruction of the transepts and apses of the Early Church – as fill to raise the floor

of the Late Church. The early nave remained in place during the first construction phase, the “old” and “new” building elements presumably connected by an entryway and an equalized floor level. Floor levels in the west range indicate that this area – including a restored north building and a utilitarian south building – was also redeveloped at this time. The apparently continuous but misaligned north wall was most likely built in two or three separate segments. The easternmost section almost certainly dated to the first construction phase, but the dating of the center and western sections is ambiguous. The layout suggests that the church was originally planned as a basilica. This plan, however, was apparently scrapped with the construction of a closing wall that truncated the church and created the separate structure now designated the “north building.” After or in conjunction with this event, a new floor was laid over the demolished early nave (Zaneri 2012), resulting in what appears to be an open plaza surrounded in part by the north building and the west range.

Late Cloister and associated construction: The removal of upper site levels and the presence of a standing farmhouse hampered our reconstruction of the late cloister. The cloister probably extended south from the north building as far as the rear wall of the farmhouse and from the closing wall to the west range, occupying the entire area between the church and the west range. The north building was probably completed at this point and the west range buildings were renovated, with newly laid floors at roughly the same level as the cloister. An oven complex and an elaborate water control system dominated the south building. The presence of a high pavement in the southwest corner of the excavation area may be associated with the construction of a refectory to the south. This final construction episode was directly overlain by levels associated with the abandonment of the monastery.

Abandonment and destruction period: Good stratigraphic data from the west range allowed us to develop a hypothetical sequence for the abandonment and destruction of the abbey. This appears to have been a relatively lengthy process, its termination characterized by a complete transition in land use from a sacred built environment to agricultural land that also served as a source of re-cycled, stockpiled building materials.

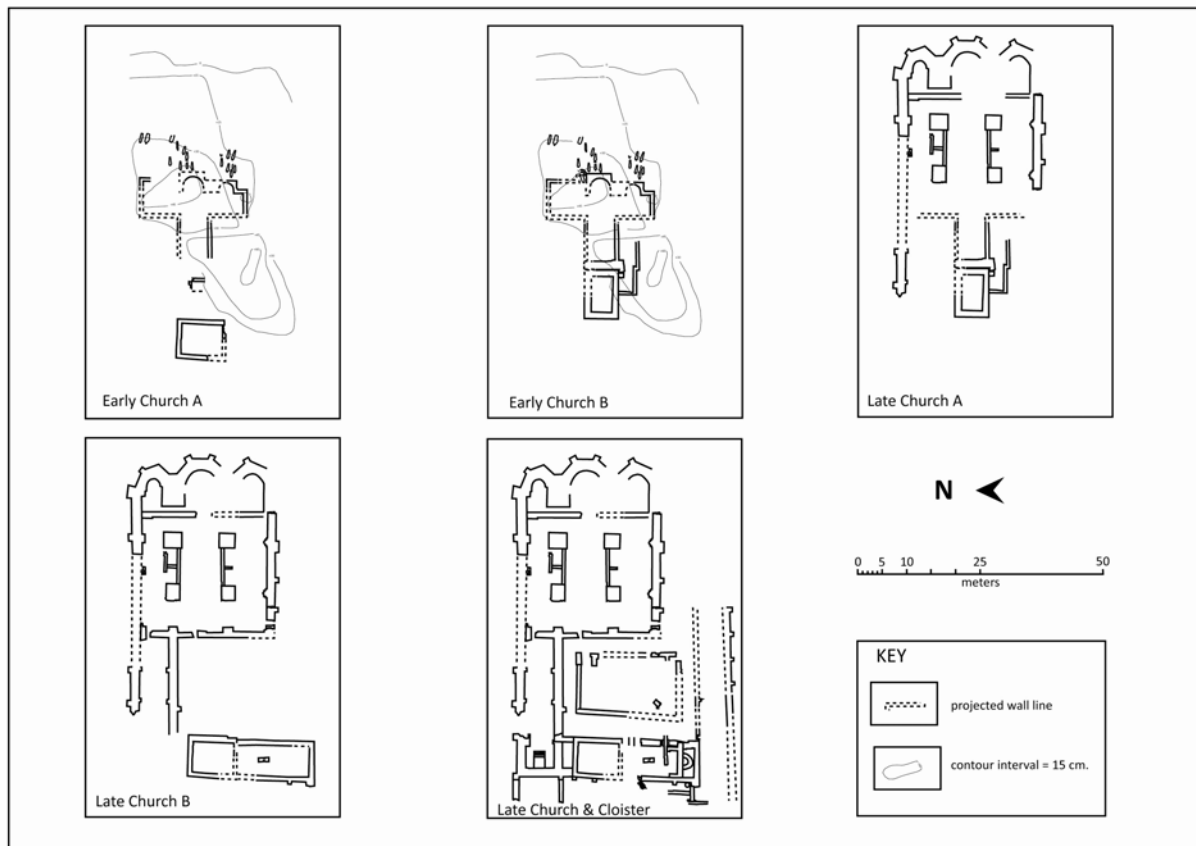


Figure 11.2 Changes in the built environment over the monastic period.

Figure 11.2 presents a graphic illustration of the successive alterations to the site structure over the monastic period. Contour lines shown on the plans of the Early Church were compiled from data on shot-in elevations and profiles. They are intended to provide a rough guide to the slope of the land at the time that the monastery was founded. Unfortunately, there are not enough data points to construct a more accurate contour map of the site area. An analysis of the site structure contributes to a more nuanced understanding of land use and activities by abstracting essential shifts in spatial behaviors and spatial decision making. In this case, it is geared toward developing additional insights on the use of sacred space and raising questions for future research. Work on the collections, if or when or they become available for analysis, will undoubtedly add to or alter the interpretations laid out here.

Over time, the extent and scale of the built environment changed dramatically, as the landscape transitioned from riverside hamlet to medieval monastery. Expansion was continuous from the construction of the Early Church through the construction of the late cloister, but most pronounced during the transition from Early to Late Church, around the end of the twelfth century.

Overall, the extent of sacred built space increased 300% over the transition from Early Church-C to Late Church-A, and then an additional 200% with the construction of the late cloister. This resulted in increased structural density. The architectural reconstructions (Riorden and Tillman 2011) further indicate that the Late Church buildings were higher and more capacious than the earlier ones, thus more monumental. The basis for the shift from Early to Late Church was accomplished through the alteration of the existing topography – i.e., raising the surface of the east slope to equalize ground levels across the planned sacred precinct. The pre-monastic and Early Church structures were built on higher ground, more toward the center of the islet. Since the old nave was to remain in place and Christian tradition required that the high altar be to the east of the nave, building eastward was probably the only viable choice for the medieval builders. Over the next few centuries, the structural density increased by infilling into the area previously occupied by the Early Church. This process culminated in the construction of the late cloister, surrounded by the north building and the west range, creating a virtually enclosed sacred precinct with restricted lay access.

Concurrent with the development of the later sacred precinct, there was a shift in the ratio of restricted sacred space – i.e., space allocated solely to the monastic community – to space that was accessible to the lay public. Restricted sacred space in the excavation area consisted of ritual performance space (apses and altars), as well as the choirs and the cloister, which served as spaces dedicated to the monastic prerogatives of chanting, prayer, and meditation. During the Early Church and Late Church-A periods, the old nave and narthex would have served as lay spaces. These were probably supplanted by the central and north “aisles” of the later church. The numeric ratio of monastic to lay space, approximately 1:1 during the Early Church-C through Late Church-B period, increased to about 3:1 after the construction of the cloister.

In spatial terms, restricted space can be characterized as relatively “deep” (Hillier and Hansen 1984), physically bounded by choir screens or steps up to the main and side altars, and difficult to access. Data on doorways and entry points are not complete, but it appears that traffic patterns across the extent of the sacred precinct became increasingly constrained. The construction of the closing wall and the separation of the north building reduced access into the church to an entry in the northwest corner and possibly a second doorway from the intermediate floor. This second entry was eliminated once the north building and the cloister were completed.

The reuse of past building elements – including individual stones, segments of older buildings, and even design concepts – remained a trope through the life of the monastery and after its destruction. Roman stones were found in the south transept of the Early Church and Romanesque stones in the late cloister. The core of the Late Church was faced with newly cut ashlars, but the utilitarian west range incorporated recycled rough cut stones as well as the newer ashlars. These walls were intended to be plastered over and therefore not visible in the finished buildings. In addition, stones were recycled as elements of landfill and stockpiled for future use. Such expedient reuse can be considered an economizing strategy undertaken in “response to limitations of technology or resources” (Kinney 2009).

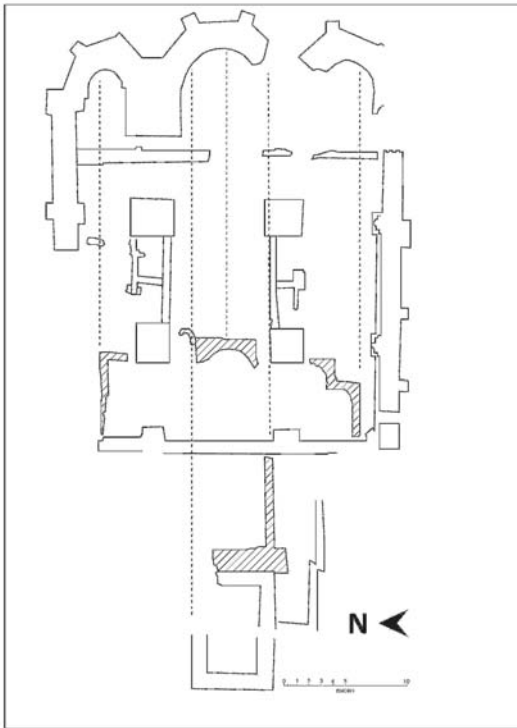


Figure 11.3 Juxtaposition of Early and Late Churches.

Symbolic reuse, on the other hand, entails the repurposing of building elements, sections of buildings, or entire buildings in order to “claim the cultural and political heritage of the donor structure” (Cornell University 2014). This concept can also be applied to design and planning, i.e., the use of a previous site configuration as a visual mnemonic, a concrete representation of historico-social memory and connectivity (Dublin 1998). The multi-faceted idea of symbolic reuse might explain the spatial relationship between Early Church-C and Late Church-A. As figure 11.3, suggests, the Early Church appears to have served as a template for siting and laying out the Late Church (Zaneri 2012). Despite the size difference, the center line of the late apses aligns exactly with the midpoint of the central apse in the Early Church, and the side apses of the Late Church are roughly centered on the outer line of the early transepts. This modeling allowed the maintenance of the original orientation, which was slightly north of due east.

During Late Church-A, the early nave remained as an artifact embedded in the fabric of the new church, a tangible marker of the abbey’s history. Had the presumed plan to extend the Late Church been followed, the

foundations of the Early Church would have been nested inside and under the floor of the finished church. The architectural use of a meaningful historical referent can be considered a purposeful invocation of religious and/or secular power (Helms 1993:87). On a pragmatic level, the retention of the nave maintained a continuity of public space and the needs of an outside congregation, while aggrandizing monastic and ritual space. It would have been cost-effective during a period when Psalmodi was experiencing financial problems, but, as I have argued elsewhere (Dublin 1998 etc.), adaptive reuse also provides social value by maintaining continuity with the past and reinforcing institutional history (whether demonstrable or “legendary”). This would seem especially useful in a contested landscape – for instance the eleventh century monastic landscape of southern France. However awkward the interim church, the joining of the old and the new integrated segments of Psalmodi’s legendary past and its future. This architectural expression echoes Remensnyder’s (1995) seminal work on the legendary foundation myths that emphasized the age and pedigree of the various southern French abbeys.

In our anthropological opinion, this is one of the more compelling theoretical aspects that emerge from the excavations at Psalmodi. As an idea for future research, it would integrate the archaeological and historic record in evaluating the relationship between medieval political and religious change in southern France and the sociopolitical implications of “fighting with buildings?”

The results of the excavations (however incomplete) can also address theoretical questions regarding the nature of sacred spaces and the use of the built environment in expressing social relations of power. On a more directed basis, these results would benefit greatly from addressing several lacunae, including the extent of the pre-monastic occupation; more precise dating of the various structures, features, and surfaces; and the completion of the collections analysis, which could shed additional light on behavioral and functional aspects of the site. The full extent of the monastic complex is not known. Although a comparison of the spatial layout of contemporaneous monasteries can be used to predict the layout of Psalmodi, non-intrusive geophysical and remote sensing methodologies could establish a more precise picture of the monastic whole. On the plus side, a stratigraphic analysis of the recent and archived material from the Psalmodi excavations demonstrates the robust patterning of this aspect of archaeological data, despite missing elements.

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