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The First Romanesque architecture of Conflent, Pyrénées-Orientales, France (66). Tradition, System and Style.

Volume 1

Text

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> Simon Rush 2022

Abstract

The area of southern France and northern Spain which constituted medieval Catalonia includes numerous sites witnessing developments in Romanesque church architecture. The buildings of the 11th century inspired a local architectural historian, Josep Puig i Cadafalch, to propose a division of the period into two phases, the earlier *primer art romànic* ('First Romanesque') being distinguished from the mature variant of the style by the treatment of the fabric, the lack of sculpted ornament and the limited use of vaulting. Affinities with contemporary practice in northern Italy were recognised, the connection between the two regions being supported by the historical narrative, but questions relating to the introduction of the style into Catalonia remain the subject of debate. Whereas the recruitment of mastermasons from Lombardy may be a reasonable assumption in the case of the more iconic monuments, it fails to explain the near-universal adoption of First Romanesque features in the numerous rural churches which must have been constructed by indigenous artisans.

This thesis focuses on the reliance placed on traditional methods by local labour, and the extent to which architectural developments at the turn of the first millennium might be considered evolutionary rather than revolutionary. It also emphasises the constraints placed on the mason by the materials at his disposal, and suggests that areas where complex geological events have occurred are best suited to gauge the relative dominance of 'system' over 'style'. The study area is thus largely confined to the medieval county of Conflent, which occupied the foothills of the Canigou massif to the west of Perpignan, and now forms an administrative sub-division of the French *département* of Pyrenées-Orientales (66). Within its borders are to be found the Pre-Romanesque abbey church of Saint-Michel de Cuxa and Saint-Martin du Canigou, one of the earliest examples of First Romanesque architecture in

Catalonia, these providing suitable points of departure for a discussion of precedents and innovation. Equal importance will, however, be attached to the numerous parish and community churches which survive on the county's three distinct geological landscapes, and best encapsulate the various problems encountered by the individuals responsible for raising fabric to satisfy the aesthetic demands of their patrons.

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Abbreviations used in footnotes and figure accreditation

BM Bulletin monumental CC Catalunya carolíngia

CCM Cahiers de civilisation médiévale

CR Catalunya romànica

Vol. 1 Introducció a l'estudi de l'art romànic català

Vol.7 La Cerdanya, el Conflent

Vol.14 Rosselló.

Vol.25 El Vallespir, el Capcir, el Donasà, la Fenolleda, el Perapertusès

ER Études roussillonnaises

Marca Pierre de Marca, Marca hispanica sive limes. . .

MH Monuments historiques, Ministère de la Culture, France

SDAP66 Service Départmental de l'Architecture et du Patrimoine, Pyrenées-Orientales

SMC Les Cahiers du Saint-Michel de Cuxa.

Introduction

Of all the artisans consigned to anonymity in medieval documents, the master-mason stands alone in being subjected to constraints which were site specific, and not derived solely from the demands of his patron.¹ In all but the most privileged cases he was a prisoner of circumstance, compelled to glean materials and manpower from the immediate vicinity. Both influenced the construction methods employed, and thus the appearance and structural framework of the building, rendering certain features more difficult or expensive to undertake or, in extreme cases, impossible to achieve.²

The present study focuses on the versatility shown by indigenous masons in the extreme geological conditions of the Pyrenean interior where, during the early decades of the 11th century, they were called upon to adapt traditional building methods to cater for the demands of a new aesthetic. The common denominator of churches constructed throughout the region during this period was the shift from rubble walling to regular, horizontally-coursed masonry, and the distinctive range of ornament applied to the exterior elevations of the building. The coincidence of these features was deemed by the Catalan architect and art historian, Josep Puig i Cadafalch, to be of sufficient moment to merit this early phase of Romanesque architecture being considered a discrete variant of the style – the *primer art romànic* ('First Romanesque'). The masonry detailing was seen as originating in northern Italy where, as early as the 9th century, structural and decorative procedures associated with Roman brickwork engineering were being revived, translated into stone and progressively

Charles B. McClendon, *The Origins of Medieval Architecture*, New Haven; London (Yale University Press) 2005; p.3. Jean Adhémar, 'Influences antiques dans l'art du Moyen Age français', *Studies of the Warburg Institute* [7], London, 1939, p.6.

Henri Focillon, *The Art of the West*, [Ed] Jean Bony, Oxford (Phaidon) 1963, pp.67-8.

applied to religious buildings.³ They later came to characterise the churches of regions bordering the northern shore of the Mediterranean from Croatia to Catalonia, as well as those of Burgundy, Switzerland and the Upper Rhine Valley.

Of greater consequence for later architectural developments was a revival in the art of vaulting, and its use as the preferred means of covering the nave of grand and lesser churches alike. By the mid-19th century, successive modifications to this aspect of the building were recognised by French scholars as more indicative of the phases of the Romanesque than the aesthetic criteria previously employed. Attention shifted to the increasingly complex armature incorporated within the structure to dissipate the imposed load of the vault, and the reconfiguration of internal spaces within the church to cater for changes in liturgical practice.⁴ As a result, the fundamental transformation in building methods tended to be eclipsed by debates on form and affiliation:⁵ much was rightly made of the competence of the architect in dealing with the statics and massing of religious buildings,⁶ less of the mason's resourcefulness in ensuring the sound and durable fabric necessary for their construction.

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Jean Valery-Radot, *Églises romanes*, Brionne (Gérard Montfort) 1979, pp.21-22.

Carol Heitz, 'Recherches sur les rapports entre architecture et liturgie à l'époque carolingienne', pp.139-48 in Éric Palazzo [Ed], Liturgie et société au Moyen Âge, Paris (Aubier) 2000; 'Architecture et liturgie processionnelle à l'époque préromane', Revue de l'Art [24] 1974, pp.30-47. Charles M. Radding & William W. Clark, Medieval Architecture, Medieval Learning: Builders and Masons in the Age of Romanesque and Gothic, New Haven & London (Yale University Press) 1992, pp.1-8. For the imposition of a common liturgy and its architectural implications, see Allan Doig, Liturgy and Architecture, Farnham, Surrey (Ashgate Publishing Limited) 2008; pp.109-33 for Carolingian initiatives; pp.139-42 for impact of the Mozarab rite. Cf. Éliane Vergnolle, 'Les débuts de l'art roman dans le royaume franc (ca.980-ca.1020)', CCM [170] 2000, pp.161-193; variation in the design of the chevet in churches subscribing to the same liturgy suggests that this influence has sometimes been overstated.

⁵ Christian Sapin, 'La pierre et le voûtement, innovation dans les techniques de construction des églises en Bourgogne au XI^e siècle', pp.179-85 in *L'innovation technique au Moyen Âge. Actes du VI^e Congrès International d'archéologie médiévale, Dijon, 1-5 octobre 1996*, [Ed] Patrice Beck, Paris (Éditions Errance) 1998.

The association of the term 'architectus' (or 'architector') with the design of a building had largely disappeared by the 7th century, being replaced by titles – *cæmentarius, magister fabricæ*, for example - which suggest that the role was generally filled by an individual trained as a mason; Nikolaus Pevsner, 'The Term 'Architect' in the Middle Ages', *Speculum* [17:4] 1942, pp.549-62. Also L R Shelby, 'The Role of the Master Mason in Medieval English Building', *Speculum* [39:3] 1964, pp.387-403; Pierre du Colombier, *Les chantiers des cathédrals. Ouvriers, Architectes, Sculpteurs*, Paris (Picard) 1973, p.41ff. In the body of this study, which deals largely with small rural churches, the designation 'master-mason' will be preferred.

The imbalance was accentuated in early classification systems by a focus on the grander and more accessible churches, and the neglect of regions where adverse geological conditions prevailed. The underlying premise of this study is that the appeal and vitality of the First Romanesque style are most accurately assessed in just such marginal environments, where compromise was the watchword of artisans with little or no access to easily worked stone, and with a limited experience in the raising of bonded masonry.⁷

The context chosen is that of the medieval county of Conflent, centred on the Canigou massif in Roussillon, where local patrons were minded to incorporate features of the new style in their buildings, but whose concepts had to be transmitted to, and interpreted by masons working with some of the most obdurate materials known to man [1,2]. The area has the advantage of including within its borders the monastery of Saint-Michel de Cuxa, a Benedictine establishment which rose to prominence in the 10th century, and whose standing fabric reflects the state of the building trades immediately prior to the introduction of First Romanesque techniques. This is a significant factor when contrasting the evolutionary and innovatory aspects of architectural developments in the region, acting as it does as a point of reference for assessing the design and construction methods applied to rural churches of the period. However, as the religious buildings of the numerous nucleated settlements founded in Conflent before the turn of the first millennium were amongst those later rebuilt in First

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The earliest mention of mortar-bonded masonry in Conflent dates to the mid-10th century. Prior to this the building materials of choice comprised timber or packed earth (Fr. *pisé*, Cat. *tàpia*), the latter being associated with Moorish fortifications from the 10th century onwards, and common to domestic architecture until the First World War. See Jean Dethier, *Architectures de terre*, Paris (Éditions du Centre Pompidou) 1986, pp.35-36; Isabelle Rémy, Claire-Anne de Chazelles, Aymat Catafau & Patrice Alessandri, 'Des maisons en terre médiévales sur un îlot du quartier Saint-Mathieu, à Perpignan (Pyrénées Orientales)', *Archéologie du Midi médiéval* [27] 2009, pp.53-95.

Romanesque style, the analysis of 10th century monuments – some dependencies of Cuxa – necessitates extending the survey to sites beyond the borders of the county.

The significance of these early churches is that, unlike their predecessors, mortar-bonded fabric was employed in their construction and fundamentally affected the range and complexity of the building methods – the 'system' – available to indigenous artisans. The relative isolation of Conflent exacerbated the problems faced by the mason, with the region north of the Pyrenees lacking in precedents for both the working of stone and the use of mortar. To some extent these issues were mitigated in early structures, where the means of raising plain walling differed little from that found in the drystone structures – terracing and field boundaries – associated with early agriculture in the uplands. Obtaining stone posed few problems, the prevalence of ground scatter obviating the need to quarry the underlying igneous and metamorphic bedrock of the region. When lime mortar entered the equation, however, the task of building a church moved perceptibly from one which could be undertaken by unskilled labour to one which required planning and management, contact and negociation with outside agencies and, above all, an ability to deal with the increasingly involved day-to-day running of the site.

For the supervising mason, the impact was felt most acutely in the two linked areas of logistics and materials handling. Ensuring reliable sources of aggregate and lime putty, fixing the appropriate proportions of the mix by trial-and-error, and training his labour force in its preparation, storage and use were all functions alien to his previous experience. Moreover, a new dimension was added to the process of construction: a sense of permanence, an expectation that the building would outlive the generation of craftsmen that constructed it. With this in mind, the mason was encouraged to better evaluate the qualities

of the materials at his disposal, and reserve specific varieties of local stone for use in critical parts of the structure.

Although the dimensions and configuration of the church were governed by external factors such as the size of the community and the demands of the liturgy, the properties of mortared masonry allowed the master-mason to introduce structural features which can be singled out as markers of 'style'. The most prominent was the profile adopted for arches erected over openings in the envelope, or between nave and apse, the two distinct patterns which appeared in Roussillon during the 10th century prompting debate on whether the architectural influences at play emanated from the Christian heartland of Europe or from Muslim-controlled Iberia. Coupled with the earlier of the two variants was the use of barrel vaulting over projecting apses of limited proportions, another process which tested the mason's familiarity with his materials: with the qualities of mortar in both the raw and cured state; with the strength of the bond when applied to different varieties of stone; and with the drying time required before the removal of formwork.

Both 'system' and 'style' assumed greater importance in the early 11th century. The desire of patrons to replicate the uniform fabric which epitomised the First Romanesque style induced an unconventional approach to the sourcing of raw materials, with a greater proportion of stone being derived from watercourses. This impacted on the stability of the masonry, the rounded shape of the blocks reducing both the surface contact between adjacent components and the efficacy of the overlapping bond between successive courses. Moreover, the absence of interstitial packing placed an undue reliance on mortar as a structural element, a problem compounded by the impervious nature of the stone, which demanded a rapid initial set of the bonding agent to avoid slumping as work progressed.

In such circumstances, it might be expected that patrons and their master-masons would err on the side of caution, but churches sited on the Canigou massif include examples where extensive use was made of vaulting, and innovative approaches adopted in the design of its support skeleton. This is of particular significance in the case of Saint-Martin du Canigou, generally held to be the site where First Romanesque techniques and aesthetics were introduced north of the Pyrenees, but applies equally to several of the larger parish churches of the county. These instances reflect a reconciliation of two opposing forces: on the one hand, the architectural ambitions of those sponsoring the project; on the other, the technical proficiency of the artisans employed in its achievement. If attributed to indigenous craftsmen, such collaborations would have been asymmetric, with the complexity of the structure demanded by the patron taxing the practical skills of masons with a limited grasp of the underlying principles involved.

An enduring strand of the debate dealing with 11th century architecture in Catalonia resolves the conundrum by positing the necessary presence, at least at the major sites, of experienced master-masons recruited from abroad, with the monastic or cathedral ateliers established under their auspices introducing key elements of the style to the native workforce. Comparisons drawn across the varied geological landscapes of Conflent expose a significant flaw in such a model: not only are the rural churches sufficiently varied in design and ornament to rule out the guiding hand of a single atelier, but frequently so restricted in scale and financial investment as to preclude the presence of a master-mason of standing. Dismissed as backward (*retardataire*) by French architectural historians, these nevertheless display a degree of ingenuity in adapting system to style according to the available primary material. Whereas the fabric often merits the pejorative other aspects of the structure

occasionally do not, which opens the possibility that indigenous craftsmen were themselves agents for change, and only marginally affected by events at high-status sites.

Taken collectively, the rural churches of Conflent allow the central tenet of the present work to be tested, this being that their design and construction reflected what might be termed an 'ambient aesthetic', rather than rigid criteria laid down by a particular atelier or the ruling elite more generally. This raises two potential lines of inquiry: the first is based on the presence in close proximity of monastic dependencies and churches built by village communities, which enables the factors influencing the transmission of the style to be assessed; the second considers the distribution of the monuments across the discrete geological landscapes of the county, and the degree to which the characteristics of native stone impacted on the design and construction of the building.

Supporting evidence for the hypothesis will be sought in both the historical and architectural spheres, with equal prominence given to the decades either side of the year 1000. This extends the relevance of the third rubric – 'tradition' – included in the title of the thesis into areas other than the accretion of practical skills, much of the impetus behind the early 11th century building boom being linked to developments during the earlier period: to the role of Benedictine monasticism; to the elaboration of patronage networks and the actions of specific benefactors; to fluctuations in the socio-economic climate and contemporary *realpolitik*; and to the long-standing prerogatives of local communities. Although their origins lay in 10th century society, the majority of these factors were equally germane to the architectural developments of the new millennium, having a bearing on the availability and training of craftsmen employed in the building trades, and hence on the development of construction methods adapted to local conditions.

The intention to focus on indigenous craftsman and the evolutionary nature of the shift from Pre-Romanesque to First Romanesque styles in Conflent dictates the structure of the research. A preliminary chapter will deal with the career of Josep Puig i Cadafalch (1867-1956, a native of Barcelona, and his association of medieval church-building with the emergence of a distinct Catalan culture. His early work, which recognised affinities between the 11th century buildings of his homeland with those of northern Italy, will be set in the context of contemporary – and primarily French – architectural historiography. The influences leading to his subsequent proposition that buildings erected prior to ca.1070 merited being considered a discrete stylistic variant will be discussed, and an assessment made of the initial response to his thesis. The salient features of the style will be described, as will the means by which they were introduced from their point of origin in northern Italy to more distant regions. The continuing validity of the concept will be gauged in the light of recent research, with particular reference to its significance for scholars specialising in the architecture of medieval Catalonia.

Subsequent sections will focus on the specifics of the study area which had a bearing on individuals engaged in the building trades: the geology, physical environment, settlement pattern and social structures. Reference will also be made to those aspects of the historical narrative which culminated in the rise of a comital lineage, and its nurturing of a symbiotic relationship with both monastic and ecclesiastical authorities.

The question of aristocratic patronage will be addressed in the introduction to the treatments of Pre-Romanesque buildings and those of the 11th century, a change of emphasis having been prompted in the interim by a growing familiarity within Catalonia of architectural developments in northern Italy. However, the activities of the ruling elite centred almost

exclusively on the iconic cathedrals and monasteries of their counties, with the foundation or renovation of rural churches being driven by local agencies addressing real or perceived inadequacies in the existing religious estate. It was the intensity of this programme that demanded the appearance centre-stage of a character – the indigenous master-mason - who had hitherto filled a supporting role, and whose extempore departures from the established script lie at the heart of the present work.

The chapters devoted to the 11th century buildings themselves will concentrate on this point, examining how significant elements of First Romanesque architecture – uniformity of fabric, external decoration and vaulting – were prioritised, and assessing the degree to which their inclusion in specific churches demanded the acquisition of new theoretical or practical skills. The intention will be to demonstrate that 'style' and 'system' must be considered independently when dealing with the lesser religious sites of Conflent: that despite the near-ubiquitous acceptance of a new aesthetic by the sponsors of rural churches, the expression of their wishes was constrained by the competence of the indigenous mason and the materials he had at his disposal.

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Manuel Riu & Pilar Valdepeñas, 'El espacio eclesiastico y la formación de las parroquias en la Cataluña de los siglos IX al XII', pp.57-67 in L'environnement des églises et la topographie religieuse des campagnes médiévales. Actes du congrès international d'archéologie médiévale (Aix-en-Provence, 28-30 septembre 1989), Caen (Société d'Archéologie Médiévale) 1994.

Chapter 1

Josep Puig i Cadafalch and the 'invention' of the First Romanesque.

The designation of a discrete early phase in the development of Romanesque architecture in Western Europe was given substance in a work written by the Catalan architect, politician and art historian, Josep Puig i Cadafalch (1867-1956), during a period of residence in France in the 1920s. *Le premier art roman*, published in Paris in 1928, was based on a series of lectures delivered at the Sorbonne; this was later expanded in a Catalan version, *La geografia i els origens del primer art romànic.* Puig's thesis was the culmination of research carried out over two decades, an initial paper linking the Romanesque churches of Catalonia to those of northern Italy being presented at the *Congrès archéologique de France* in 1906, and expanded in *L'Arquitectura romànica a Catalunya*, a collaborative work published in Barcelona between 1909 and 1918.

In Puig's initial analysis a comparison between the two regions was based primarily on the outward appearance of early 11th century buildings, which exhibit similarities in the type of fabric employed and the distinctive range of ornament incorporated in their external elevations. In Catalonia, the relatively abrupt introduction of these features coincided with the widespread adoption of barrel vaulting which, in Puig's view, suggested a degree of

Josep Puig i Cadafalch, *Le premier art roman. L'architecture en Catalogne et dans l'Occident méditerranéen aux IXe et XIIe siècles*, Paris (Henri Laurens) 1928a. For summary, see J. Puig i Cadafalch, 'La géographie générale et la chronologie du premier art roman', *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* [72:1] 1928b, pp.73-83.

Josep Puig i Cadafalch, *La geografia i els origens del primer art romànic*, Barcelona (Institut d'Estudis catalans) 1930.

Josep Puig i Cadafalch, 'Les influences lombardes en Catalogne', *Congrès archéologique de France (Carcassonne & Perpignan) 1906*, Paris (A. Picard) 1907, pp.684-703.

Josep Puig i Cadafalch, Antoni de Falguera, Josep Goday y Casals, *L'arquitectura romànica a Catalunya*, 3v. Barcelona (Institut d'Estudis Catalans) 1909-17. The edition used here is a facsimile issued by the Departament de cultura de la Generalitat de Catalunya in 1983.

technical sophistication inaccessible to indigenous artisans, and thus requiring the direct intervention of master-masons imported from abroad.

This interpretation conformed to an academic thesis advanced by contemporary Italian art historians who attributed the role to the *magistri comacini*, craftsmen from Lombardy who had preserved (or revived) the guild structure of Late Antiquity and the construction methods of Roman engineers. The supposed presence of the *comacini* in medieval Catalonia added an architectural strand to a prevailing historical narrative: this considered the forging of closer ties with Rome from the mid-10th century onwards as marking the waning of Frankish influence, and the rise of the region as an independent polity under aristocrats of Visigothic origin. This view resonated with Puig, whose political sympathies were with the autonomist movement of *fin de siècle* Catalonia, and the campaign waged to gain greater independence for the province: a campaign predicated on its unique language and culture, and the singular circumstances of its formation.

The socio-political dimension of Puig's early work.

Puig's professional training brought him into contact with two successive directors of the Barcelona School of Architecture, Elies Rogent and Lluís Domènech i Montaner, who profoundly affected his future career. Puig's interest in conservation owed much to Rogent, a keen advocate of the theories of Eugène-Emmanuel Viollet-le-Duc, but it was Domènech who was the more influential in encouraging his study of local monuments and involvement in public affairs. 14

Rogent (1821-97) was appointed in 1871; Domènech (1850-1923) succeeded to the position in 1890 and remained in post until 1920.

Joan Ainaud de Lasarte, 'Lluís Domènech i Montaner: el polític i la seva època', in L. Carulla i Canals & M. Font i Bernaus [Eds.], *Lluís Domènech i Montaner. En el 50º aniversari de la seva mort*, Barcelona (Fonds Arquer) 1973 (no date or page numbers); Lluís Montaner i Girbau, *Domènech i Montaner*, Barcelona (Edicions Polígrafa) 1994.

In elections held in 1901, the success of a coalition of groups seeking greater independence for the province - the *Lliga Regionalista* – saw Domènech elected to the Madrid parliament, and Puig gaining a seat on the municipal council of Barcelona. Puig succeeded Domènech as a representative of the *Lliga* at the Cortes between 1907 and 1910, before becoming involved in the *Mancomunitat de Catalunya*, a regional body granted limited responsibility for local affairs by the Spanish government in 1914. He served as second president of the *Mancomunitat* from 1917 until 1924, shortly before its suppression during the dictatorship of Miguel Primo de Rivera in 1925.¹⁵

Public interest in the architectural heritage of Catalonia, and especially that associated with early comital administration, predated the establishment of the *Lliga*, largely being stimulated by intellectual societies such as the *Centre excursionista de Catalunya*. ¹⁶ Visits were organised to sites throughout the province, ¹⁷ those of the period between 1904 and 1906 providing the opportunity for Domènech to generate an archive of texts, drawings and photographs relating to Romanesque buildings. ¹⁸ It is assumed that an intention to publish this material was forestalled by Puig's more comprehensive project: certainly, the appearance of the first volume of *L'arquitectura romànica a Catalunya* in 1907 coincided with a breakdown in relations between the two men, and a divergence in their political careers.

The involvement of non-governmental organisations in publicising the lamentable state of medieval Catalan monuments had precedents in France, where religious sites had

For context: Joaquim de Camps i Arboix, *La Mancomunitat de Catalunya*, Barcelona (Editorial Bruguera) 1968; Albert Balcells, Enric Pujol, Jordi Sabater, *La Mancomunitat de Catalunya i l'autonomia*, Barcelona (Institut d'Estudis Catalans) 1996; https://web.gencat.cat/en/generalitat/historia (accessed 15.01.2019)

F.G.Alonso, 'Archaeology and nationalism: The development of archaeology in Catalonia in the early twentieth century', *Complutum* [24:2] 2013, pp.131-144.

¹⁷ Ibid. The Centre excursionista was founded in 1890; of equal importance were the Associació Catalanista d'Excursions Científiques (1876), and the Associació d'Excursions Catalana (1878).

Domènech's archive is managed by the Fundacío Lluìs Domènech i Montaner: www.fldm.cat/en/archives. It is held at the Col.legi d'Arquitectes de Catalunya: https://www.arquitectes.cat (accessed 18.01.2019)

suffered both during the Revolution and in the period of intensive industrialisation carried out by subsequent Restoration administrations. Here, however, the antiquarian movement adopted a more proactive stance by campaigning for government intervention to prevent further damage to the remaining estate. A leading role was played by Arcisse de Caumont, who promoted a wider appreciation of medieval architecture in France through learned societies established for the purpose. The Société des antiquaries de Normandie was founded in 1824, but it was with the inauguration of the Société pour la Conservation des Monuments and the Société Française d'archéologie in 1833 that his work assumed a political dimension. Concerns raised resonated with the French literati and gained sufficient traction to prompt a response from François Guizot, briefly Minister of the Interior under Louis-Philippe, who created the post of Inspector General of Monuments in 1830. His appointee, the art critic Ludovic Vitet, undertook several tours of inspection between 1830 and 1833, but it was his successor, Prosper Mérimée, who laid the foundations of what later became the Commission des monuments historiques. The network of regional collaborators who surveyed and reported on threatened monuments for the Commission was modelled on the

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De Caumont could draw on earlier French studies, notably Aubin Louis Millin, Antiquités nationales ou Recueil de monumens pour servir à l'histoire générale et particulière de l'empire François, 5v. Paris (Drouhin) 1790-98; Alexandre de Laborde, Les Monumens de la France classés chronologiquement et considérés sous le rapport des faits historiques et de l'étude des arts, Paris (P Didot) 1816; and Jean-Baptiste Séroux d'Agincourt, Histoire de l'Art par ses Monumens, depuis sa décadence au IVe siècle jusqu'à son renouvellement au XVIe, Paris, 1823. For his familiarity with the theories of contemporary English authors, see T. W .Bizarro, Romanesque Architecture: A Prehistory, Cambridge (Cambridge University Press) 1992, pp.132-49; Jean Nayrolles, L'invention de l'art roman à l'époque moderne (XVIIe-XIXe siècle), Rennes (Presses universitaires de Rennes) 2005, pp.103-4. Two works singled out are: Thomas Rickman, An Attempt to discriminate the Styles of Architecture in England, from the Conquest to the Reformation, London, 1817; and Thomas Gunn, An Inquiry into the origins and influence of Gothic Architecture, London, 1819, where the term 'Romanesque' was introduced.

For an example of the reaction, see Victor Hugo, 'Guerre aux démolisseurs', *Revue des Deux Mondes* [5:1], 1832, pp.607-22; Jean Mallion, *Victor Hugo et l'art architectural*, Paris (Presses universitaires de France) 1962, pp.425-81; Louis Réau, *Histoire du vandalisme: les monuments détruits de l'art français*, Paris (Robert Lafont) 1994, p.364ff. Guizot was a renowned historian who looked beyond the invasion period for the roots of French culture; he also recognised Romanesque architecture as a necessary precursor of the Gothic: see Neyrolles, 2005; pp.103-4. For the political context, G.Bertier de Sauvigny, *The Bourbon Restoration*, Philadelphia (University of Philadelphia Press) 1966, pp.201-35, 328-64.

Xavier Darcos, *Mérimée*, Paris (Flammarion) 1998, especially pp.147-178. Mérimée's expertise as an acclaimed writer was put to good use in publishing a series of volumes for the general public distilled from material gathered in the course of his official travels; see Prosper Mérimée, *Notes sur un voyage dans le midi de la France*, Paris (Fournier) 1835; *Notes sur un voyage dans l'ouest de la France*, Paris (Fournier) 1936; *Notes sur un voyage en Auvergne*, Paris (Fournier) 1938; *Notes sur un voyage en Corse*, Paris (Fournier) 1840. A notable example of his personal intervention with Louis-Philippe saw the Cluniac abbey of La Charité sur Loire saved from destruction by a proposed new highway.

organisation created by Caumont to support the annual *Bulletin monumental*, first published in 1834.

In contrast, the early activities of the *Centre excursionista* in Catalonia had little impact on local (or national) governments, which played no part in the conservation of threatened monuments until early in the 20th century. In 1865, for example, a private initiative to renovate Santa Maria de Ripoll foundered in the face of government reluctance to cede ownership of the building. It was only revived in 1886, when the monument was finally transferred to the bishop of Vic: the project was entrusted to Rogent and largely funded through public subscription.²²

One of the first acts of the *Lliga Regionalista* was the inauguration of the *Institut d'Estudis Catalans* [IEC] in 1907, with Puig as a founder member: this marked a pivotal moment for Catalan scholarship, its original philological remit being quickly expanded into the spheres of scientific and archaeological research.²³ In common with Mérimée's approach, energies in the architectural field were initially devoted to assessing the situation on the ground, an early foray - involving both Puig and the *Centre excursionista* - being to record the condition of a group of churches in the Vall de Boí and their endangered frescos.²⁴ A preoccupation with conservation encouraged the IEC's publication of *L'arquitectura romànica a Catalunya* which, apart from its theoretical value, constituted a valuable gazetteer of surviving monuments.²⁵

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The abbey was severely damaged during the Carlist Wars in the first half of the 19th century.

Albert Balcells & Enric Pujol, *Història de l'Institut d'Estudis Catalans*, Barcelona (Institut d'Estudis Catalans) 2002, p.15ff. Scientific and archaeological arms were inaugurated in 1908.

Josep Puig i Cadafalch, 'Les Iglesies romàniques ab cobertes de fusta de les valls de Bohí i d'Aran', *Anuari de l'Institut d'Estudis Catalans* 1908, pp.119-136.

Especially with regard to photographic evidence of monuments in their pre-restoration condition. 19th century engravings of Roussillon sites are also available: see Chantal Alibert & Sophie Aspord-Mercier [Eds.], *Voyages pittoresques et romantiques du baron Taylor dans l'ancienne France* [Languedoc [2], Aude-Pyrénées Orientales], Portet-sur-Garonne (Loubatières) 2012. Given the title, the engravings cannot be considered a reliable representation of the buildings, but an

Active intervention at medieval sites in Catalonia drew on French precedents, and the principles established by architects appointed by the Commission des monuments historiques. Viollet-le-Duc emerged as the most influential of these, his first contract being to undertake urgent remedial action at Sainte-Marie-Madelaine, Vézelay. 26 Given the paucity of both theoretical and practical knowledge of medieval construction methods, the project required a meticulous study of the surviving structure in order to determine – from first principles – the techniques and materials employed by the original masons.²⁷ A subsequent appointment to the team engaged on the restoration of the 13th century Sainte-Chapelle in Paris helped to bridge lacunae in his technical knowledge, bringing him into contact with the specialist craftsmen he lacked at Vézelay. This increased his appreciation of Gothic architecture, for which he was an early champion, and informed the influential Dictionnaire raisonné de l'architecture française, published in 1873.²⁸ Viollet-le-Duc's detailed deconstruction of medieval practice not only increased public and professional appreciation of buildings erected prior to the Renaissance, but established a manual for aspiring conservators both in France and abroad.²⁹

Admiration for Viollet-le-Duc's robust defence of medieval architecture was, however, tempered by criticism of his idiosyncratic approach to restoration, which favoured reinstating buildings in idealised (or even 'romanticised') form to a rigorous preservation of

¹⁸³³ view of Saint-Michel de Cuxa (pp.60-61) shows the two original transept towers, and a complex of buildings still standing at the western end of the nave, but unfortunately lacking in detail.

Georges Poisson & Olivier Poisson, *Eugène Viollet-le-Duc*, Paris (Éditions A & J Picard) 2014, pp.72ff. An earlier project for the completion of the cathedral of Narbonne was rejected as being outside the remit of the Commission.

Ibid. Despite his preparatory work, Viollet-le-Duc misread critical features of the building, the most significant being the design of the nave vaulting. As originally conceived this was a continuous barrel supported on transverse arches with a slightly stilted, horseshoe profile, and complicated by lateral penetrations. Deformation of the structure may explain its interpretation by Viollet-le-Duc as groin vaulting, which was the system adopted in his restoration.

²⁸ Eugène-Emmanuel Viollet-le-Duc, *Dictionnaire raisonné de l'Architecture Française du XI^e au XVI^e siècle, 10v. Paris (Morel) 1873.*

The impact and influence of Viollet-le-Duc's work are comprehensively discussed in M.F.Hearn [Ed], *The architectural theory of Viollet-le-Duc: Readings and Commentary*, Cambridge, Mass. (MIT) 1995.

their surviving features. ³⁰ In Catalonia, these principles were applied by Rogent to the renovation of Santa Maria de Ripoll, with the result that the current state of the building differs in critical respects from the version consecrated in 1031 which it purports to replicate. ³¹ Puig was equally supportive of this stance, which guided his interpretation of the episcopal complex at Egara ³² and his suggested reconstruction of the Mozarab features of Saint-Michel de Cuxa, ³³ both subsequently being disputed. ³⁴

The histographical context of L'arquitectura romànica a Catalunya.

Arcisse de Caumont and Viollet-le-Duc were not only instrumental in encouraging the appreciation and conservation of medieval monuments, but in contributing to the rise of architectural historiography as an academic discipline in its own right. It was predominantly to French scholars that Puig referred in compiling *L'arquitectura romànica a Catalunya*.³⁵

In 1830, Caumont published a series of lectures on the archaeology of France where, in sections devoted to medieval building practice, he described the gradual evolution of technology and architectural style from the 8th century, when stone again became an

For detailed criticism, see Pierre Ponsich, 'L'architecture préromane de Saint-Michel de Cuxa et sa veritable signification', *SMC* [2] 1971, pp.3-18; Jean Hubert, 'L'église Saint-Michel-de-Cuxa et l'occidentation des églises au Moyen Age', *Society of Architectural Historians* [21:4] 1962, pp.163-70; Xavier Barral i Altet, 'Nouveaux apports au dossier archéologique de l'église Saint-Michel de Cuxa', *Journal des Savants* [3] 1977, pp.199-223.

Viollet-le-Duc, 1873: v.8, 'Restauration'. For his guiding principal, p.14: 'Restaurer un edifice, ce n'est pas l'entretenir, le réparer ou le refaire, c'est le rétablir dans un état complet qui peut n'avoir jamais éxisté à un moment donné.'

A detailed synopsis of the political influences motivating Rogent is given in Ignacio González-Varas Ibáñez, 'La reconstrucción de Santa María de Ripoll por Martín Sureda y Elías Rogent (1880-1893). Historiografía e ideología en la afirmación del primer románico catalán como *estilo nacional*', *Espacio, Tiempo y Forma. Serie VII: Historia del Arte* [9] 1996, pp.317-20. Also, Xavier Barral i Altet, 'Religious architecture during the Romanesque period in Catalonia (11th – 13th centuries): Assessment and critical notes', *Catalan Historical Review* [4] 2011, pp.27-52.

For conflicting views on the function of Sant Miquel de Terrassa, see Josep Puig i Cadafalch, 'La cathédrale et le baptistère d'Égara (Catalogne), *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* [91:3] 1947, pp.536-542; Georges Gaillard, 'Les églises de l'ancien évêché d'Égara', *Bulletin de la Société nationale des Antiquaries de France*, 1961, pp.101-108; Antoni Pladevall i Font [Dir.], *Catalunya romànica*, Barcelona (Enciclopèdia Catalana) 1984- ; v1, p.65.

³ Below, p.110*ff*.

Olivier Poisson, 'La <carrera francesca> de Josep Puig i Cadafalch', pp.15-25 in A. López Batlle [Ed.], 1907: el paper de l'IEC en la historia de l'art i en la restauració de monuments a Catalunya i Europa. Commemoració del centenari de l'Institut d'Estudis Catalans. Barcelona (Diputació de Barcelona) 2009. Although Puig acknowledges his debt to a number of French architectural historians, Viollet-le-Duc is rarely cited.

important construction medium, to the advent of the Gothic.³⁶ The pejorative racial or tribal labels previously in vogue were discarded in favour of the term *architecture romane* for buildings which displayed affinities in conception and method of construction to Roman practice.³⁷ A classification comprising three *époques* was proposed: the *primordiale*, covering developments up to the end of the 10th century; the *secondaire*, for the 11th and early 12th century, broadly corresponding to modern interpretations of the Romanesque;³⁸ and the *tertiare*, which identified divergent regional chronologies for the adoption of more advanced methods of conceiving religious buildings.³⁹ Modifications were later made to his terminology however, with buildings prior to the 11th century increasingly being described as 'Pre-Romanesque', and the label 'Gothic' being revived for the style which emerged in the later 12th century.⁴⁰

The debt owed to the natural sciences and a burgeoning interest in geology was reflected not only in Caumont's chosen manner of subdividing the period but, less felicitously, in his use of 'assemblages' of elements to distinguish each phase, where ornamentation and the overall appearance of the building prevailed over analysis of its underlying structure. ⁴¹ A

Arcisse de Caumont, Cours d'antiquités monumentales: histoire de l'Art dans l'Ouest de la France, depuis les temps les plus reculés jusqu'au XVII^e Siècle, Paris (Lance) 1830-43 (later editions published at Rouen, Caen & London); specifically v.4, 'Moyen Âge: Architecture religieuse (1831), p.46ff. See also Abécédaire ou rudiment d'Archéologie, Paris (F. Leblanc-Hardel) 1870, Ch.1-2, pp.5-376.

De Caumont ,1830: v.4, pp. 38-41. For context, and especially the earlier use of the term 'Romanesque' in England, see Bizzarro, 1992: pp.11-19; Nayrolles, 2005: pp.36-46. Cf. Eric Fernie, 'The History of Medieval Architecture from Carolingian to Romanesque: Criteria and Definitions from 1925 to the Present Day', *Muqarnas* [8] 1991, pp.36-39.

For the proliferation of terms defining the Romanesque, or singling out certain phases in its evolution, see Xavier Barral i Altet, *Contre l'art roman*, Paris (Fayard) 2006, pp.15-31.

³⁹ De Caumont, 1830: v.4, p.46ff.

Jules Quicherat 'De l'ogive et de l'architecture dite ogivale', Revue archéologique, [7:1] 1850, pp.65-76; 'De l'architecture romane: classification des espèces', Revue Archéologique [9:2] 1852, pp.525-40. For these and and related articles, see Auguste Castan, Arthur Giry & Robert de Lasteyrie [Eds], Mélanges d'archéologie et et d'histoire: archéologie du Moyen Âge, Paris (Alphonse Picard) 1886. The designation 'architecture ogivale' is considered misleading, as two-centred profiles exist in the formed openings of many Romanesque buildings, and cannot thus be considered diagnostic of a later style. Quicherat also reviews historical precedents, where the term 'ogive' relates specifically to the profile of the vault.

Jean Nayrolles, 'Sciences naturelles et archéologie médiévale au XIXº siècle', pp.25-50 in *L'architecture, les sciences* et la culture de l'histoire au XIXº siècle. Xº Entretiens Jacques Cartier, Saint-Étienne, décembre 1997, Saint-Étienne (Publications de l'Université de Saint-Étienne) 2001. Puig drew on a similar analogy in an early synopsis of his theory: Josep Puig i Cadafalch, 'La géographie générale et la Chronologie du premier art roman', Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres [72:1] 1928, pp.73-83.

similar comparative approach was applied to define regional schools associated with discrete civil or religious polities, a preoccupation that has exercised French theorists down to the present day.⁴² Despite the shortcomings of his methodology, Caumont popularised and stimulated the study of architectural history throughout France, and established the broad chronological divisions applied to medieval architecture in other areas of Europe.

Viollet-le-Duc accepted the validity of Caumont's theory of regional schools, but his approach to the evolution of medieval architectural styles concentrated on the cognitive faculties – the 'structural rationalism' - required of the architect in designing buildings where each component of the imposed load of the superstructure was reflected in a vertical component of its underlying support. In the case of tiered churches, allowance had to be made for variation in the lines of thrust at the spring lines of aisle, gallery and nave vaulting, and the profiles of the support members altered accordingly. The building was thus conceived as a series of horizontal planes, with that initially set out at ground level necessarily catering for transformations which would only occur at later stages of construction.

A recurring theme of the *Dictionnaire* was the versatility, improvisation and experimentation required of the master-mason in constructing ever more complex buildings. The 'elasticity' of churches constructed in the Gothic style was contrasted with the static nature of their earlier counterparts, but the underlying shift in approach was considered an organic process – 'a continuous series of transitions' – based on precedents established during the 11th and early 12th century.⁴⁴ An embryonic bay system arose from the use of transverse arches to support nave vaults, which in turn initiated changes in the cross-section

Nayrolles, 2005; p.260ff.

lbid. pp. 149-54. Also, M.Bressani, 'Opposition et équilibre: le rationalisme organique de Viollet-le-Duc,' Revue de l'Art [112] 1996, pp.28-37; Hippolyte Abraham, 'Viollet-le-Duc et le rationalisme médiéval', BM [93:1] 1934, pp.69-88.
 Viollet-le-Duc, 1873: v1, 'Préface' sections IV, V.

of support members and a modular approach to defining internal volumes.⁴⁵ A reliance on spot loading to dissipate the pressure exerted by the superstructure also occurred when groin vaulting was substituted for the customary half-barrel over the aisles of basilican churches. It is difficult, however, to read into these advances in design more than a faint indication of what was to come, their being applied inconsistently across the geographic range of early Romanesque buildings, and seldom developed to their full potential.⁴⁶

Viollet-le-Duc's conclusions were broadly accepted by later 19th century French theorists working under the auspices of the *École des chartes*, several of whom being cited by Puig as sources in both *L'arquitectura romànica a Catalunya* and the *Geografia*. The mould was set by Jules Quicherat, its director between 1871 and 1882, who considered the vault as the determining factor in the design of Romanesque monuments, and that features unconnected with its structural support were of subsidiary importance.⁴⁷ Quicherat's conclusions were not widely circulated during his lifetime, but stimulated further lines of enquiry – and a degree of criticism - amongst fellow *chartistes*.

Weaknesses in the thesis were exposed by Robert de Lasteyrie, whose objections centred on the omission of wooden-roofed buildings from the classification scheme, and a blurring of temporal divisions when considering the introduction of groin and ribbed

An alternative origin for the bay system in the wooden structures of Northern Europe has been proposed, but not generally accepted: see Walter Horn, 'On the Origins of the Medieval Bay System', *Journal of Architectural Historians* [17:2] 1958, pp.2-23; for contrasting view, Eric Fernie, *Romanesque Architecture: the first style of the European age*, New Haven & London (Yale University Press) 2014, pp.25-26. Sant Vicenç de Cardona survives as an early Catalan example of a basilica built as a series of identical modules: for antecedents, Eric Fernie, 'Saint-Vincent de Cardona et la dimension méditerranéenne du premier art roman' *CCM* [43] 2000, pp.243-56; 'Sant Vicenç at Cardona and Byzantine Architecture revisited', pp.33-40 in Pere Freixas & Jordi Camps [Eds.], *Els* comacini *i l'arquitectura romànica a Catalunya*, Barcelona (Museu Nacional d'Art de Catalunya) 2010. Cf. Peter Reed, 'Structural Rationalism and the Case of Sant Vicenç de Cardona', *Architectural History* [43] 2000, pp.24-41.

Robert Mark [Ed], *Architectural Technology up to the Scientific Revolution*, Cambridge, Mass. (MIT Press) 1994, p.107.

⁷ Quicherat, 1852: pp.525-38; also Nayrolles, 2005: pp.159-61.

vaulting.⁴⁸ For Eugène Lefèvre-Pontalis the practice of defining regional schools solely in terms of their principal monuments rendered the whole concept suspect, and could only be justified when common characteristics were identified amongst rural churches within their geographical limits.⁴⁹ Of equal significance was the view expressed by Louis Courajod, who censured the parochialism of supporters of regional schools, and argued against their being treated as hermetically sealed units where Roman tradition constituted the sole agency involved in their evolution.⁵⁰

To a greater or lesser degree, the comprehensive nature of *L'arquitectura romànica a Catalunya* and its search for external precedents for local monuments nullified each of these objections. Far from being an architectural backwater, the province was shown to have been closely integrated with other regions of the Christian world, and receptive to innovations in church design and construction which occurred far beyond its borders.

In bringing the medieval buildings of Catalonia into focus, Puig's work complimented that of Jean-Auguste Brutails, whose seminal study of Romanesque architecture north of the Pyrenees was consistently acknowledged as a prime source in *L'arquitectura romànica a Catalunya*. ⁵¹ Brutails had studied under both Quicherat and Lasteyrie before beginning a career as *archiviste départmental*, briefly for the Pyrénées-Orientales but principally for the Gironde. A personal acquaintanceship between the two scholars can be traced to the 1906

Robert de Lasteyrie, *L'Architecture religieuse en France à l'époque roman*, Paris (Auguste Picard) 1929; for criticism of Quicherat's classification system, p.407ff.

François Deshouilères, 'La théorie d'Eugène Lefèvre-Pontalis sur les écoles romanes', BM [84] 1925, pp.197-252.

Henri Limmonier & André Michel, *Louis Courajod. Leçons professées à l'école du Louvre (1887-1896)*, Paris (École du Louvre) 1899-1903. Courajod undertook a systematic review of the possible influences on Romanesque architecture; for his critique of Qicherat's reliance on Latin precedents, see pp.292-305.

Jean-Auguste Brutails, *Notes sobre l'art religiós en el Rossilló*, Barcelona (L'avenc) 1901; also, 'L'architecture romane en Catalogne avant le XII^e siècle', *Bulletin historique* [16:3] 1914, pp.381-91.

Congrès archéologique held at Perpignan, where Brutails was a member of the steering committee, and developed into a mutual respect which endured until Brutails' death in 1926.

Brutail's research into the architectural history of south-west France began with a series of monographs written in the last decade of the 19th century.⁵² These essays left no doubt that the vault occupied centre-stage in understanding the fundamental design of the building, and relegated other factors to the wings. Here Quicherat's *théorie constructive* was reduced in complexity, the buildings being classified according to vault profile and the presence or absence of transverse arches, with each category further subdivided into churches comprising single, twin or triple vessels.⁵³ A similar template was used in compiling the *Notes sobre l'art religiós en el Rossilló*, and adopted by Puig in categorising medieval churches in *L'arquitectura romànica a Catalunya*, where it was amended to cater for churches which included a crossing tower or cupola, a feature largely absent in the area studied by Brutails.

The mid-19th century also saw parallel efforts to re-evaluate the Early Christian architecture of northern Italy in the period following the collapse of the Western Empire. The melding of Roman and Near Eastern models which followed Justinian's 6th century reconquest of Italy inspired a number of commentators to stress the enduring influence of Byzantine architecture on that of the region,⁵⁴ with specific reference made to the domed, centrally-planned churches which predominated in Constantinople and the provinces under

For example, 'Note sur l'église de Montagne (Gironde), *BM* [59] 1894, pp.342-46; 'La question de Saint-Front', *BM* [60] 1895' pp.87-137. Brutails was also influenced by Courajod: see Jean-Auguste Brutails, 'Les influences de l'art oriental et les goths dans le Midi de la France', *Anuari de l'Institut d'Estudis Catalans*, 1907, pp.29-42.

Brutails, 1901: p.13. A further category was devoted to more complex variants.

The end of the Greek War of Independence in 1829 facilitated access to sites in Constantinople and Asia Minor: Jean Nayrolles, 2005: p.285-86. For early French studies: Ludovic Vitet, *Architecture lombarde*, Paris, 1830; Alexandre-Albert Lenoir, *De l'architecture byzantine* Paris, 1840; Félix de Verneilh, *L'architecture byzantine en France*, Paris (V. Didron) 1851; Charles Texier & Richard Pullan, *L'architecture byzantine*, London, 1864; Auguste Choisy, *L'art de bâtir chez les Byzantins*, Paris, 1883.

its control.⁵⁵ Roman precedents for these were acknowledged,⁵⁶ but the dome as the dominant feature of a religious building, and refinements in its means of support, were recognised as the work of Byzantine architects of the 6th to 8th centuries.⁵⁷ Two further developments with a far-reaching effect on Romanesque church design were also traced to Asia Minor: the triple-apsed east end and a remodelling of the transept to include a strongly delineated crossing.⁵⁸

L'arquitectura romànica a Catalunya recognised the Eastern Mediterranean as an important source of inspiration for Pre-Romanesque practice in Catalonia, numbering amongst the vectors not only the Visigothic settlers, but subsequent migrants of Greek, Jewish and North African origin.⁵⁹ In Puig's view, their familiarity with a diverse range of models explained variants in the design and decoration of churches alien to the tradition built up during the Roman occupation of Spain. Of particular note was the widespread use of the horseshoe profile in the arches, vaulting and ground plan of buildings erected in Christianheld territories after the Muslim invasion, and considered diagnostic of a distinct 'Mozarab' interpretation of Pre-Romanesque architecture.⁶⁰ The appearance of the feature was initially attributed to the early decades of the 10th century,⁶¹ but has more recently been considered

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Richard Krautheimer, *Early Christian and Byzantine Architecture*, New Haven & London (Yale University Press) 1986, p.203ff; Peter & Linda Murray, *The Oxford Companion to Christian Art and Architecture*, Oxford (Oxford University Press) 1998, pp.69-79; David Watkin, *A History of Western Architecture*, London (Barrie & Jenkins) 1986, pp.71-87.

R. Furneaux Jordan, Western Architecture, London (Thames & Hudson) 1969, pp.71-94

⁵⁷ Ibid

Fernie, 2014: pp.18-22. Also, Jean-Perre Caillet, 'Le mythe du renouveau architectural roman', *CCM* [43] 2000, pp.341-69.

Puig i Cadafalch, 1909-17: v.1 [2], p.258ff. Also, Rose Walker, Art in Spain and Portugal from the Romans to the Early Middle Ages: Routes and Myths, Amsterdam (Amsterdam University Press) 2016, p.107.

Marcel Durliat, *Des barbares à l'an mil*, Paris (Éditions Mazenod) 1985, p.334-35. The term refers to the origins of the refugees who are presumed to have built the churches. Freedom of religious observation was afforded to Christians living under Muslim rule until the reign of Mohammed I (852-86), when they were offered the choice of converting to Islam or exile. A large number of those who elected to leave settled in the no-mans-land of the upper Duero valley, and are presumed to have included craftsmen familiar with Islamic models and techniques.

Puig i Cadafalch, 1909-17: v.1 [2], p.359ff; Puig i Cadafalch, 1961: pp.131-40.

a slightly later phenomenon.⁶² Opinion is equally divided on the debt owed to the Caliphate for the choice of profile, which was not the sole preserve of Islamic architecture. Puig himself cited precedents from as far afield as Cappadocia, Armenia and Damascus to augment those of Roman origin found in Asturias,⁶³ and pointed out the fundamental differences in proportion and means of construction adopted either side of the frontier.⁶⁴

The accepted interface in Italy between the basilican model and influences emanating from the Eastern Empire was Ravenna, where an exarchate survived until 751.⁶⁵ Early 19th century Italian authors concentrated on the export of *savoir-faire* from this region to the neighbouring areas under Lombard control.⁶⁶ Law codes issued by Rothari (r.636-52) and Luitprand (r.712-44) were quoted as evidence of a revival of the construction sector, these including measures to regulate the conditions of the building trades, and making specific mention of the duties and privileges of the *magistri comacini*.⁶⁷

The activities of the *comacini* formed the basis of later studies dealing specifically with the medieval architecture of Lombardy which, directly or indirectly, influenced Puig's initial explanation for the dissemination of First Romanesque practice. A prominent contributor to the debate was Fernand de Dartein, whose major work exemplified the 'Lombardo-centrisme'

Durliat, 1985; Walker, 2016: p.182; for analysis, see below, pp.107-13.

⁶³ Puig i Cadafalch, 1909-17: v.1 [2], p.360.

⁶⁴ *Ibid.,* p.392. Cf. Ponsich, 1971: pp.3-17.

Roger Stalley, Early Medieval Architecture, Oxford (Oxford University Press) 1999, p.29.

For example, Guiseppe & Defendente Sacchi, *Antichità romantiche d'Italia*, Milan 1828-29; Guilio Cordero di San Quintino, *Dell'italiana architettura durante la dominazione longobarda. Ragionamento*, Brescia, 1829; Amico Ricco, *Storia dell'architettura in Italia dal secolo IV al XVIII*, 3v. Modena 1857-59. For a synopsis of 19th century Italian scholarship, see Saverio Lomartire, 'Comacini, Campionesi, Antelami, <Lombardi>. Problemi terminologici e storiografici', pp.9-31 in Pere Freixas & Jordi Camps [Eds], *Els 'comacini' i l'arquitectura romànic a Catalunya, Simposi Internacional, Universitat de Girona & Museu Nacional d'Art de Catalunya, novembre 2005*, Barcelona (Museu Nacional d'Art de Catalunya) 2010.

For the original publication of the law codes, Carlo Troya, *Leggi sui maestri comacini promulgate dal re Luitprando*, Naples, 1854.

which permeated French architectural historiography in the latter part of the 19th century.⁶⁸ The expertise of the *comacini* in different aspects of construction, and involvement as both builders in their own right and overseers of the work of third parties, were taken as evidence of the survival of the Roman *collegium* system governing specific trades.⁶⁹ They were assumed to have operated as peripatetic groups in Italy, but their presence elsewhere relies heavily on later custom, where the recruitment of foreign artists for specific projects is more reliably documented.⁷⁰ The case of William of Volpiano is a noted exception, his role as facilitator in the building of Saint-Bénigne de Dijon being eased by the presence in his entourage of experienced Lombard craftsmen.⁷¹

Both Dartein and his Italian contemporary, Guiseppe Merzario,⁷² interpreted the law codes of Rothari as confirmation that church building resumed as early as the mid-7th century,⁷³ but gave only qualified support to a long-standing view that a number of monuments retained features securely dated to this period.⁷⁴ In Dartein's opinion, the emergence of a distinctive Lombard interpretation of church architecture was a product of the mid-9th century, and hence of the period of Carolingian control of the region.⁷⁵ His hypothesis cited documentary sources relating to the influence of two archbishops of Milan, Angilbert II (824-59) and Anspert (868-81), on the reconstruction of Sant'Ambrogio, which he placed in the first half of the 9th century.⁷⁶

Fernand de Dartein, *Architecture lombarde*, Paris (Dufardin) 1892; this work was based on a series of visits to Northern Italy undertaken between 1860-75, and published in sections from 1865 onwards. Also, Léonce Reynaud, *Traité d'architecture*, Paris (Victor Dalmont) 1858, pp.218-257.

⁶⁹ Dartein, 1892; p.75ff.

⁷⁰ Xavier Barral i Altet, 2006: p.259-65.

Alain Erlande-Brandenburg, *De pierre, d'or et de fer: la création artistique au Moyen Âge, IVe au XIIIe siècle,* Paris (Fayard) 1999, p.138-39. There is no evidence of Lombard craftsmen being involved at other sites administered by William: those in Normandy, for example, reflect purely local traditions in both design and construction.

⁷² Guiseppe Merzario, I maestri comacini: storia artistica di mille duecenti anni (600-1800), Milan (Agnelli) 1893;

Dartein, 1892: p.89ff; his source was the 8th century *Historia Langobardorum* of Paul the Deacon.

In France this view was propagated by Seroux d'Agincourt; cf. Arcisse de Caumont, 1843: v.4, pp.19-22.

⁷⁵ Dartein, 1892; p.502.

⁷⁶ *Ibid.* p.75.

A more sanguine chronological view was taken by Rafaele Cattaneo,⁷⁷ who maintained that only the apse of Sant'Ambrogio was work of the 9th century, and that its external detailing was the precursor of the distinctive suite of Lombard decoration applied from the 10th century onwards to Romanesque buildings both in Italy and beyond. This conclusion was reiterated by Giovanni Rivoira in a work which combined investigation of the possible origins of the Romanesque style with an explanation of its spread beyond the borders of northern Italy.⁷⁸ Unlike the material published by Dartein and Cattaneo, Rivoira's analysis was accompanied by photographic evidence which he made available to Puig, and which was used in *L'arquitectura romànica a Catalunya* to illustrate the similarities between the Romanesque churches of Catalonia and their counterparts in northern Italy.⁷⁹

In coupling the introduction of Lombard decoration with the incidence in Catalonia of the cognomen 'Lombard' (or its derivatives), Puig initially credited the transformation in the outward appearance of early 11th century churches to a widespread influx of artisans whose building methods and aesthetic impacted primarily on rural communities, and only later recurred in grander monuments.⁸⁰ Assuming a limited theoretical training of the incomers, modifications to the more structurally significant aspects of the building – the ground plan, and especially the introduction of barrel vaulting - were seen as inspired by a wider understanding of Gallo-Roman tradition, and considered the remit of more proficient masons. The ateliers undertaking major projects in the second quarter of the 11th century

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Rafaele Cattaneo, *L'Architettura in Italia dal secolo VI al mille circa*, Venice 1888 [English translation/Amazon reprint], pp.222-274. His point of departure was also Sant'Ambrogio, Milan, which he considered to have been rebuilt in the 11th century, but retention of the mid-9th century apse allowed typological comparisons to be made with other churches in northern Italy.

⁷⁸ Giovanni Teresio Rivoira, *Le origini dell'architettura lombarda e delle sue principali derivazioni nei paesi d'Oltr'Alpe,* 2v. Rome, 1908.

⁷⁹ Xavier Barral i Altet, *Josep Puig i Cadafalch. Escrits d'arquitectura, art i política*, Barcelona (Institut d'Estudis Catalans] 2003, p.63ff.

Puig i Cadafalch, 1909-17: v2, p.19ff, pp.76-78.

were thus instrumental in promoting advanced technical skills amongst an indigenous workforce already proficient in producing the fabric and ornament demanded of the new style.⁸¹

Exile and developing theories of the First Romanesque.

In 1924, the changed political environment in Spain effectively ended Puig's studies of local medieval sites, and encouraged his taking a wider European view. His voluntary exile in France until 1930, when democratic government was reinstated in Madrid, saw him assimilated into the circle of medievalists presided by Henri Focillon, and thus exposed to new strands of academic thought. A brief return to Catalonia ended abruptly with the onset of the Spanish Civil War, and his fortuitous escape to France. The first six months of this second period of exile were spent in Conflent at Saint-Michel de Cuxa, before he took up a teaching career in Paris and America. The Franco regime eventually allowed his return to Spain in 1946 on condition that he did not practice as an architect: he did, however, resume his historical analysis of Catalan architecture, the results being publishing posthumously in 1961.⁸²

Puig's stay in Paris drew him into the contemporary debate on problematic aspects of the periodisation applied to medieval architecture by 19th century French historians. Of particular concern was the disjointed narrative dealing with the influences at play in the late 10th and early 11th centuries, and their role in the evolution of mature Romanesque aesthetics and building practice. Although it was recognised in *L'Arquitectura romànica a Catalunya* that a new approach to the design and construction of Catalan churches marked the decades

Josep Puig i Cadafalch, L'art wisigothique et ses survivances, Paris (F de Nobele) 1961.

around the turn of the first millennium, and that a similar architectural signature continued in vogue throughout much of the 11th century, the period was not categorised as a distinct phase of the Romanesque. It was only when extending his analysis to areas beyond the Catalonia-Northern Italy axis that Puig coined the term *primer art romànic* (First Romanesque) to describe a trans-regional style of architecture which originated in Lombardy in the last decades of the 10th century, and subsequently spread around the northern shores of the Mediterranean, and across the Alps into Burgundy, the Rhine Valley and as far north as Brabant and Westphalia.

The redirection of Puig's research was stimulated by the comprehensive reassessment of Lombard architecture published by Arthur Kingsley Porter in 1917 which, in two important respects, reached conclusions at variance with those advanced in *L'arquitectura romànica a Catalunya*. ⁸³ Porter was sceptical of the chronology advocated by Cattaneo and Rivoira, dating the introduction of typical Lombard ornament to the end of the first millennium, and considering its more complex manifestations as indicative of churches built in the early decades of the 11th century. ⁸⁴ He also raised objections to contemporary views of the *magistri comacini*, ⁸⁵ disputing both their association with the region around Lake Como and their reputation as itinerant masons directly responsible for the transfer of specific building techniques to areas beyond the frontiers of northern Italy. ⁸⁶

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⁸³ Arthur Kingsley Porter, Lombard Architecture, 3v. New Haven (Yale University Press) 1916-17.

Porter, 1916-17: v1, p.225ff. His view contrasted with that of Rivoira, who assigned the adoption of Lombard ornament to as early as the 8th century; see Rivoira, 1908: v1, p.138ff. For Porter's influence, see Eric Fernie, 'History and Architectural History', *Transactions of the Royal Historical Society* [13] 2003, pp.199-206.

⁸⁵ Porter, 1916-17: v1, pp.8-12.

Ibid.. pp.157-58: the association of William of Volpiano with Cluny is treated as a case apart; crucially, Porter sees First Romanesque buildings in Burgundy as reflecting influences from both Lombard and Ottonian traditions. In its original incarnation, Saint-Bénigne included methods of construction typical of the 'northern First Romanesque' defined by Grodecki, and equally apparent at Saint-Philibert de Tournus. Cf. Louis Grodecki, *Au seuil de l'art roman: l'architecture ottonienne*, Paris (Armand Colin) 1958, p.313ff; C. Edson Armi, *Masons and Sculptors in Romanesque Burgundy*, 2v. Pennsylvania & London (Pennsylvania State University Press) 1983, v1, pp.121-30.

Porter's concerns were reflected in both the *Premier art roman* and the *Geografia*, where the engagement of foreign masons to supervise the construction of the grander churches of Catalonia, although not entirely discounted, was no longer considered a dominant agency governing the introduction of structural innovations.⁸⁷ A greater emphasis was placed on the internal lines of communication within Benedictine monasticism, and those between members of the Catalan ruling class – both lay and ecclesiastic – and Rome.⁸⁸

Given the limited presence on the ground of imported master craftsmen, an alternative mechanism had to be sought to explain the spread of the style amongst the constructors of rural churches. In Puig's view, this was provided by the necessary involvement of indigenous artisans in the grander projects where Lombard masons were still thought to have been active, their assimilation of alien practices establishing new conventions in the art of building not only within Catalonia, but across geographically dispersed regions of Europe. ⁸⁹ Once distanced from the monastic atelier, however, these practices were subject to the sclerosis endemic in a profession where skills were transferred unaltered from master to apprentice, and further experiment discouraged. This resulted in a degree of homogeneity in the outward appearance of rural churches, the means of raising the fabric and the inclusion of similar patterns of external decoration being common denominators in the rise of what became – in Puig's view - an expression of popular culture. ⁹⁰

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For an amended view, Puig i Cadafalch, 1928a, pp.3-10.

lbid. p.41ff. Cf. Puig, 1907-17: v.2, pp.9-38, for the links between Catalan monasteries and their counterparts in neighbouring regions. However, the examples cited date to the 1070s, and relate primarily to the Second Romanesque period.

Puig i Cadafalch, 1930: p.5ff.

Ibid. p.5. Puig links this process to the emergence in other fields of a distinct Catalan identity: 'L'aportació individual de l'arquitecte, collaborant en el gran conjunt que és l'arquitectura, era, com la del literat en el llenguatge, fixant-la, depurant-la, ennoblint-la, o la del legislador en el dret, recollint el costum o l'expressió de l'opinió pública'.

The classification system used in the *Geografia* reflected this view, a greater significance being assigned to the external ornament of the church in comparing developments in regions where wooden roofing remained prevalent with those where vaulting was preferred. ⁹¹ The primary demarcation was therefore between monuments – almost exclusively basilicas - where Lombard decoration was restricted to the apse and those where it extended to the nave walls and western façade [3]. The latter category was further subdivided according to the nature of the vault, the presence or otherwise of transverse arches and the ground plan of the building. A third group comprised churches where a dome constituted the dominant feature, either as the means of roofing a centrally planned structure or as the covering to the crossing in basilicas with a defined transept.

The resulting schema was both complex and prone to inconsistencies, which were most evident in attempts to reconcile temporal developments in Lombardy with those elsewhere in Europe. The uneven survival of monuments was used to explain discontinuities in the evolutionary path of the style, a specific example being the limited presence of nave vaulting in Northern Italy prior to its exportation into neighbouring areas. Even in more localised environments, such as that of Catalonia, the mapping of dominant structural and decorative features reflected the considerable variety within each broad class of building.

In seeking to trace echoes of the First Romanesque across large tracts of southern and central Europe, Puig argued for a greater fluidity in architectural influences than was admitted by scholars whose research respected medieval political boundaries. In France, for example, the inclusion of key provinces – Burgundy, the Middle Rhine valley and Languedoc

⁹¹ *Ibid.* p.104ff.

Josep Puig i Cadafalch, 'Le prototype romain des voûtes romanes primitives', *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres*, [77:1] 1933, pp.38-42.

- within the orbit of the style was a direct challenge to adherents of the 'regional schools' theory. Further signs that the overland routes previously thought the preserve of potentate, merchant or mendicant were more widely used was uncovered in concurrent research on the movements of sculptors along the pilgrimage roads. For Catalonia, the suppression of piracy in the western Mediterranean encouraged a resumption of maritime commerce, and an alternative conduit for the transmission of both models and inspiration. The publication of *Le premier art roman* thus bolstered a growing consensus which imagined medieval Europe as less compartmentalised, in artistic and architectural terms, than previously thought.

The characteristics of First Romanesque architecture.

In defining the First Romanesque, Puig relied on a restricted range of construction practices which were not necessarily exclusive to the style, but when taken in combination served to distance it from contemporaneous developments elsewhere in Europe.

The outward appearance of the fabric, designated *petit appareil*, was consistently cited as primary evidence for the existence of a distinct phase of the Romanesque.⁹⁵ In favourable geological environments this comprised relatively small blocks with a near-

Arthur Kingsley Porter, 'Spain or Toulouse? And Other Questions', *Art Bulletin* [7:1] 1924, pp.2-25; Cf. Thomas W.Lyman, 'The Pilgrimage Roads Revisited', *Gesta* [8:2] 1969, pp.30-44.

Henri Pirenne, *Mohamet et Charlemagne*, Paris (Presses universitaires de France) 1970, p.117ff. Pirenne maintained that Moorish control of the Mediterranean after the invasion of Spain in 711 caused greater upheaval to trade and circulation than the barbarian invasions, and impacted most severely on the economies of southern Europe. A turning point was reached with the reduction of the pirate base at Fréjus in 973, but Catalan polities were also engaged in countermeasures in the late 10th century: see Pierre Guichard, 'Animation maritime et développement urbain des côtes de l'Europe orientale et du Languedoc au Xe siècle', *Actes de congrès de la Société des historiens médiévistes de l'enseignement supérieur public* [9] Dijon, 1978, pp.187-201. Cf. J. F. O'Callaghan, *Reconquest and Crusade in Medieval Spain*, Philadelphia (University of Pennsylvania Press) 2003; pp.90-92: Muslim control of the Balearics, also noted as a refuge for marauders, lasted until 1229, but hostile activities declined after the islands were annexed by the *taifa* of Dénia in 1015. For renewed links between Catalonia and Genoa, and the transmission of architectural models, see Fernie, 2000: also, 'Patronage, Romanesque architecture and the Languedoc', a paper delivered at the 3rd Romanesque Conference organised in Barcelona by the British Archaeological Association, April 7-9, 2014. I am indebted to the author for his making this material available prior to publication.

of. Brutails, 1901: p.132.

rectangular face, a simple overlapping bond, and approximately horizontal bedding. Stone was noted as being sourced locally and subjected to the minimum of dressing prior to being set: it was described as being 'hammer-split', and trimmed without the benefit of edge tools. The advantages of *petit appareil* lay in the ease and speed with which it could be raised, and the minimal technical expertise demanded of quarryman or mason. A close resemblance to brickwork was restricted to areas underlain by sedimentary deposits with regular cleavage planes, the fabric elsewhere diverging from the ideal according to the characteristics of available raw materials [4]. In practice, and even at the most high-status sites, mortar was commonly used to compensate for deficiencies in native stone, and thus became integral to the stability of the building. *Petit appareil* was not, however, sufficiently restricted in occurrence to define the style: only when appearing in conjunction with the deployment of 'Lombard' decoration on external wall surfaces could the fabric be considered a diagnostic feature of First Romanesque churches.

Precedents for both masonry and ornament were assumed to have devolved from traditional Roman methods of construction applied to the early brick-built churches of the Po valley, and later adopted by indigenous masons across the whole of northern Italy. The rhythmic panelling of exterior surfaces was judged to be inspired by the deeply-recessed blind arcading employed to strengthen the lateral walls of early Christian basilicas. This was

⁹⁶ Ibid. p.41: 'La construction est faite de pierres rustiques, cassées à coups secs avec le marteau, sans qu'on ait employé les outils tranchants des tailleurs de pierre.'

⁹⁷ C. Edson Armi, *Design and Construction in Romanesque Architecture*, Cambridge (Cambridge University Press) 2004: p.12ff. The example cited is that of Saint-Philibert de Tournus and the easily worked local Jurassic limestones.

Puig, 1908, 1930; the possible derivation of certain aspects of First Romanesque architecture from Byzantium and Asia Minor received passing reference in the paper presented at the *Congrès archéologique de France*; they were discussed at length in the *Geografia*, pp. 453-516.

Puig i Cadafalch, 1928a: pp.140-43; also *Geografia*, 1930: pp. 479-80. Cf. Porter, 1916-17, pp. 224-39; Grodecki, 1958: pp.264, 267. Deep pilasters and recessed window panels appear at Milan (San Simpliciano) in the late 4th century; at Ravenna, the lateral nave walls of Santa Croce (c.425) were reinforced by pilasters alone, but a deep arcade surrounds its extension, the 'mausoleum' of Galla Placidia; also near Ravenna, Sant'Apollinaire in Classe repeats the combination used at

modified by reducing the projection of the vertical component, and later subdividing the head into a number of smaller arches supported on wedge-shaped modillions, a procedure which reduced the costs of both labour and materials. The resulting combination of pilaster strips and arched corbel tables created a series of recessed panels adding texture to the external elevations of the church: their use was initially restricted to the apse but subsequently extended to other elevations of the building. Both Puig and Porter maintained that the number of arches forming the head of the panel tended to increase over time, as did the practice of using different configurations in sequence. Being independent of the chosen means of roofing the building, such permutations constituted a dominant factor in his determining an internal chronology of the style which was applicable across geographical boundaries.¹⁰⁰

In Puig's opinion the reduction in scale of exterior arcading at the eaves of the building attested to its being considered of negligible structural significance by medieval master-masons who, in grander buildings, reinforced the spring line of the vault by inserting a series of niches under the roof line, their internal divisions acting as local buttressing. The modified detailing was initially employed on the apse, but later extended to other surfaces of the envelope where it formed the head of recessed panels divided by pilaster strips [5]. At a number of sites, however, the blocks tracing a projecting arcade have been found to be sufficiently engaged with the background fabric to constitute a relieving arch, thus indicating that the mason recognised their potential to reinforce critical horizons of the building. ¹⁰¹

Milan: Richard Krautheimer, 1986, pp.82-83 [Fig.39,40], 181-82, 277-78 [Fig.240]. For a divergent view on the structural function of pilaster strips and arched corbel tables, C. Edson Armi, 'The Corbel Table', *Gesta* [39:2] 2000, pp.89-116.

Puig, 1930: p.53; the typology is based on Italian sites spanning the whole of the 11th century.

C. Edson Armi, 'First Romanesque Wall Systems', Society of Architectural Historians [65:4] 2006, pp.494-519; 'Orders and Continuous Orders in Romanesque Architecture', Society of Architectural Historians [34:3] 1975, pp.173-88. When dealing with the corbel table, the buildings analysed by the author are all constructed of easily worked sedimentary

The cornice above the arcade of the apse became a focal point for further embellishment, often in the form of a cog moulding, a motif also used to mark horizontal bands in bell towers [6]. The refinement of the feature was generally indicative of the quality of the stone rather than the skill of the mason: where freestone was employed, the projecting angles of each cog were well-defined; with inferior material, the end result was only an approximation of an ornament best expressed in moulded brick. Given its susceptibility to removal during later re-roofing, it may have been a more common device than suggested by the number of sites where it currently survives.

The care taken in forming niches, pilasters and arcades rarely exceeded that devoted to the background fabric, but detailing elsewhere on the building occasionally showed a degree of sophistication in the treatment of formed openings to both exterior and interior walls. Semi-circular arches were favoured as the means of spanning door and window apertures, and occasionally constructed of wedge-shaped voussoirs or, in confirmation of Roman precedent, might include a stretcher course – an *arco bardellonato* – echoing the extrados to shield the wide mortar joint required by the use of rectangular blocks. Given that protection from the elements was generally assured by the application of render or limewash, the detail lost both its structural function and decorative potential. Early 11th century masons did, however, transform this component into an ornamental feature in its own right by setting it to project beyond the plane of the wall surface in the manner of a hood mould

stone. There is compelling evidence that in this context the blocks forming the arcades penetrate the core of the wall, and thus act as reinforcement to the spring line of the vault.

Edson Armi, 2000, pp.89-116.

lbid.

The form of window embrasures also evolved, those characteristic of the First Romanesque being given a pronounced external splay, thus increasing the amount of light penetrating into the body of the church. Additional openings, either circular or cruciform, were commonly inserted in the end elevations of the building, a favoured site being above the summit of the apse vault [8]. In rural churches, the axial window of the apse frequently provided the only illumination, but was occasionally augmented by a small, poorly defined opening set high in the south-eastern elevation of the sanctuary or immediately in front of the triumphal arch. The orientation of the shaft indicates the intention to capture the early morning light of the sun as it rose above the horizon.

A further diagnostic use of the arch was associated with the introduction of groin vaulting to the aisles of basilicas later in the period, with stresses imposed on the lateral wall of the bay being transferred to vertical supports by means of a wall-rib, or formeret (*arco falcato*) [9]. These were typically of lunate appearance, their centres being raised to compensate for a discrepancy between the profile of the vault and the intrados of the arch, which occurred when the ground plan of the module was asymmetric. The modification had both short and long-term consequences, the most immediate being a need to compensate for the loss of reinforcement to the nave previously provided by the apex of a half-barrel vault. This was realised by inserting a panel of masonry above the transverse arches separating each aisle bay, thus replacing a continuous support by an intermittent one, effectively creating a series of internal buttresses. The second outcome related to the merging of the diagonals of the quadripartite vault with their supports: although eventually giving rise to the complex cross-section of later compound piers, this detail received scant attention in First

Romanesque buildings, where masons were content to incorporate the point of origin in the angle between transverse arch and nave arcade.¹⁰⁴

The introduction of vaulting impacted on Puig's overall classification system, which had to cater for parallel developments in regions where it was not widely adopted. Crucially, the installation of barrel-vaulting in the nave was an exception in northern Italy itself, where its use was generally restricted to the crypt, apse and aisles. No such reticence marred the architectural vocabulary in areas subjected to incursions by hostile forces, where the fire-resistant properties of buildings constructed entirely of stone were prized. In the case of small, unicellular churches the innovation had few structural repercussions, the thick lateral walls of the envelope being judged adequate to absorb the imposed load. The problem was more acute in churches of basilican plan, and its solution gave rise to variations in the means of covering the structure. The two conventional responses were to construct three parallel vessels of near-equivalent height under a common roof – the 'Poitevin' model - or to use the half-barrel vaults over the lower collaterals to buttress the lateral walls of the nave. 107

The introduction of transverse arches as a means of reinforcing both vaulted and timber roofed structures was integral to Puig's periodisation of the First Romanesque, the feature being common to churches throughout the geographical range of the style. 108 Subsequent effects on the cross-section of the arcade supports did not necessarily follow a

¹⁰⁴ Viollet-le-Duc, 1873: v.10, 'Voute', pp.482-85 & fig.9.

¹⁰⁵ Kenneth Conant, Carolingian and Romanesque Architecture, Harmondsworth (Penguin) 1979, pp.109-11.

Puig i Cadafalch, 1909-17: p.124; the earliest example in Catalonia dates to 957 with the rebuilding *a pavimento usque ad tegimen ex calce et lapidibus* of the church at Banyoles. This implies that stone or tile weatherproofing was applied directly to the exterior surface of the vault, rather than to a superimposed timber framework.

Brutails, 1900: p.41ff. Pierre Francastel, *L'humanisme roman*, Paris (Mouton) 1970: p.100ff. In linking the 'Poitevin' model to Anatolian precedents, Francastel contradicts Puig's view that the introduction of barrel vaulting to nave and aisles derived from its earlier use by First Romanesque masons in the more restricted span of a rectangular apse. Cf. Fernie, 2014: p.116; the author observes that this was the configuration employed in Conflent at Saint-Martin du Canigou in the first decade of the 11th century, and suggests this church as a potential model for later buildings.

Porter, 1917: v1, p.93; in northern Italy this is ascribed to a decline in the available sources of timber between the 8th and 11th century.

logical pattern, however, and bore little relation to variations in the use of exterior ornament Tabulated presentations of developments in both fields are remarkable for the anomalies they expose, especially when dealing with more complex buildings. The degree of conformity shown by early sites in Catalonia, for example, disappears with the increasing use of transverse arches in the grander monuments of the mid-11th century [10,11]. In rural churches, the distribution of exterior decoration and the use transverse arches appears equally arbitrary, with marked variations between neighbouring buildings of similar date.

The simplicity of the interiors of early 11th century churches was a major reason for their being dismissed as of little architectural significance by early commentators. In contrast to the sculpted extravagance of Gothic monuments, the naves of First Romanesque buildings when stripped of their frescos were generally unrelieved by any decorative stonework. An exception might be made of sites where spolia of Roman origin was repurposed to support the nave arcades of a basilica, but this only served to reinforce the opinion that the builders of the period were lacking in technical skill. In less fortunate areas, robust square or rectangular piers divided the interior of the church, obstructing sight lines and adding to the obscurity within. On rare occasions the mason replicated the circular cross-section of the column in carefully worked stone or brick;¹⁰⁹ rarer still were the sites where this was capped with a cushion capital formed from identical material. Turned columns of contemporary manufacture did however appear in the twinned openings of bell towers, and were capped by unornamented trapezoid capitals spanning the thickness of the wall. There were also

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For example, at Saint-Philibert de Tournus (Saône-et-Loire) and Saint-Savin sur Gartempe (Vienne).

isolated pockets where the skill of stone carving had not been lost, and attempts were made to replicate capitals in the Corinthian style. 110

In a manner consistent with his singling out of petit appareil as the diagnostic feature of First Romanesque architecture, Puig used the appearance of more sophisticated fabric to mark the origins of the Segon art romànic (Second Romanesque). As early as the 1070s in some regions, finely finished masonry of larger dimensions - moyen appareil - began to distinguish prominent sections of the church: the apse, western façade and the surrounds of doors and windows [12]. Lombard pilasters largely disappeared, and the arched corbel table tended to be reduced to a projecting cornice, initially of plain masonry but later a favoured site for ornament. Internally, the robust piers of First Romanesque buildings gave way to more well-constructed pillars, to turned and polished monolithic columns, and eventually to the compound varieties which marked the mature Romanesque. The preferred material was local marble, with varieties in contrasting colours and textures being used when available. 111 Attention reverted to the carving of the capital, with a range of animal and plant motifs demonstrating the sculptor's (or patron's) familiarity with classical models, bestiaries and the natural world. 112

In Conflent, the new aesthetic emerged in the mid-12th century cloister-building programmes carried out at many of the First Romanesque abbey or cathedral churches. A confidence in the treatment of stone later extended to the exterior ornament of the focal eastern and western sections of lesser buildings. This was a particular feature of sites

Ibid. pp.243-51.

For early sculptural repertoires in Catalonia, Immaculada Lorés Otzet, 'L'église de Sant Pere de Rodes. Un exemple de 'renaissance' de l'architecture du XIe siècle en Catalogne', CSM [32] 2001, pp.21-38.

A noted example north of the Pyrenees is Saint-Génis des Fontaines, where the *flambé* of Villefranche contrasts with white marble from Céret and a grey variety sourced in the neighbourhood of Baixas: Géraldine Mallet, Les cloîtres démontés de Perpignan et du Roussillon (XIIe-XIVesiècle), Perpignan (Archives communales de Perpignan) 2000, pp.233-35.

annexed by the Augustinian order, where both external and internal modifications were carried out at a number of churches of First Romanesque origin. 113

<u>Critical response to the publication of Le premier art roman.</u>

Puig's hypothesis of the First Romanesque as a distinct architectural style received considerable attention both in France and his native Catalonia, where *Le premier art roman* was considered a major contribution to the architectural historiography of the province. The response was, however, more muted in regions which lay outside the geographical limits of the study, and where local factors were considered more relevant to the development of the mature Romanesque. Moreover, its reception in Italy was particularly equivocal, largely as a result of detailed studies conducted during the inter-war years which greatly increased the number of monuments securely dated to the 11th century, and identified the influences exerted by areas outside Lombardy on early Romanesque building practice. To some extent this undermined the central plank of Puig's argument by crediting the genesis of the style to a number of agencies, rather than envisaging it as the sole creation of north Italian masons.

However, the numerous reviews which accompanied the publication of *Le premier art roman* testify to the interest aroused in French academic circles by Puig's analysis. ¹¹⁶ Certain reservations were nevertheless expressed by his colleagues in the *groupe Focillon*, these again focussing on the negligible attention given to advances in church design which took

For example, at the priories of Corneilla-de-Conflent, Espira and Villefranche; see Matthias Delcor, 'Les prieurés augustins en Roussillon et la statuaire romane', *SMC* [2] 1971, pp.46-53.

For divergent Anglo-Saxon perspectives, Alfred Clapham, *Romanesque Architecture in Western Europe*, Oxford (Clarendon Press) 1936, pp.21-29; Conant, 1993: p.107ff.

For details and analysis, Paolo Verzone, *L'Architettura religiosa dell'alta medio evo nell'Italia Settentrionale*, Milan 1942.

Louis Bréhier, 'Le premier art roman', Journal des Savants, 1929 [5], pp.193-208.

place in areas outside Northern Italy. Focillon himself accepted the external appearance of the buildings as a valid geographical marker, but questioned the implications of the term 'First Romanesque', which elevated a regional phenomenon to the status of a pan-European movement. In his view, the mature Romanesque represented a fusion of elements derived from diverse sources, the essential contribution of the First Romanesque being the introduction of vaulting to the high nave and its concomitant effects on the structural skeleton of the church. In This point was reiterated by Louis Grodecki, who cited Ottonian models as precedents for the modifications made to the ground plan and massing of later Romanesque churches, and especially those relating to the transept and western façade. In the weight given by Puig to the appearance of Lombard ornament north of the Alps was also queried, a number of German scholars preferring to view blind arcading as derived from the Late Antique models which inspired Carolingian architecture.

Further divergences of opinion were exposed in the influential late 20th century studies published by Pierre Francastel,¹²¹ Jean Vallery-Radot,¹²² and Jacques Henriet.¹²³ Francastel cast doubt on several aspects of Puig's thesis, questioning both the parameters used in his classification system and the chronology proposed for the evolution of the style.¹²⁴ His most trenchant criticism was directed at the methodology employed in mapping the geographical distribution of First Romanesque churches which, rather than concentrating on

Focillon, 1938; v1, p.54. Later authors acknowledged this point by adding the limiting term 'méridional' when describing the style. Cf. Marcel Durliat, 'L'art roman en France', *Journal des Savants* 1972a [2], pp.114-38.

¹¹⁸ Focillon, 1938: v1, pp.29-30.

¹¹⁹ Grodecki, 1958: p.17ff.

The debate on this subject is still in a state of flux: see Andreas Hartmann-Virich, 'Le remier art roman> et
l'architecture ottonienne et salienne', pp.131-45 in Vergnolle & Bully, 2012.

Francastel, 1970; this work was originally published in 1942, but circulation was limited by contemporary circumstances.

Vallery-Radot, 1979

Jacques Henriet, 'Saint-Philibert de Tournus. L'oeuvre du second maître, la galilée et la nef'. *BM* [150:2] 1992, pp.101-64.

¹²⁴ Francastel, 1970: pp. 41-42.

one or more time-limited phases, was a composite of the buildings constructed over the whole period. ¹²⁵ In contrast, Vallery-Radot accepted that the First Romanesque emerged from practical and theoretical skills held in common by artisans across a wide swathe of southern Europe, thus precluding their transmission solely by direct contact with Lombard masters. The adoption of new methods of construction was therefore assumed to be driven either by their proven advantage over previous practice, or by the aesthetic prescriptions of a patron. ¹²⁶ A more scathing criticism was levelled by Jacques Henriet in his analysis of Saint-Philibert de Tournus, where the application of the tag 'First Romanesque' to a complex building was seen as positively dangerous by implicitly denying influences imported from different traditions. ¹²⁷

The evidence cited by Puig for the presence of the *comacini* in Catalonia was also reexamined. His original thesis relied on the frequency with which the cognomen *lombard* (or
its derivatives) was applied to inhabitants of the province, and a supposed tendency for these
to be employed in the building trades. Both assertions were proved to be untenable: not
only was the term commonplace throughout the Carolingian Empire to denote individuals of
Italian origin, and was thus introduced in Catalonia prior to the 11th century, but
etymological studies have disproved its association with specific occupations. The one case
cited by Puig where an architect bearing the name is known to have been employed at a

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¹²⁵ *Ibid.* p.47.

¹²⁶ Vallery-Radot, 1979; p.17ff.

Henriet, 1992, pp.101-64. Henriet's comments were prompted by the design of the galilee which, although being constructed of *petit appareil* and decorated in Lombard style, exhibits structural features alien to First Romanesque practice. For a detailed analysis of the convergence of northern and southern influences in 11th century Burgundian architecture, Edson Armi, 1983.

Puig i Cadafalch, 1909-18; v2, p.19ff.

Michel Zimmermann, 'Les débuts de la <revolution anthroponymique> en Catalogne (Xe – XIIe siècles)', *Annales du Midi* [102] 1990, pp.289-308.

Joan Duran-Porta, '¿Lombardos en Cataluña? Construcción et pervivencia de una hipótesis controvertida', *Anales de Historia del Arte*, 2009 (Supplement), pp.247-61. A link between 'lombards' and the construction trades was advanced in 1910 by Josep Gudiol i Cunill, and remained current for much of the 20th century; as a synonym for 'builder', its use is only documented during later phases of the Romanesque. Cf. Xavier Barral i Altet, 2006: pp.259-65.

major site in the region dates to the 1170s, and refers to the Raimon Lombard responsible for overseeing the construction of Santa Maria, the cathedral church of La Seu d'Urgell, but the assertion that this proved his Italian origins has recently been questioned.¹³¹

A more telling critique was advanced by Marcel Durliat,¹³² an early exponent of the term *premier art roman méridional*, which he considered more descriptive of its geographic limits.¹³³ In treating specifically with Catalonia, Durliat dismissed the concept of the First Romanesque as an *art populaire* or *folklorique*, seeing it instead as a style generated by ruling elites, either lay or religious.¹³⁴ More recent studies have emphasised this point, and stressed the continuum – in terms of both patronage and architectural inspiration – that marked the passage between the 10th and 11th centuries.¹³⁵

Despite these reservations, the term First Romanesque and its equivalents remain in current use, particularly in the work French and Catalan architectural historians. However, both its validity and Puig's underlying thesis have been re-evaluated in the light of research carried out in the latter decades of the 20th century. The most comprehensive review was incorporated in the *Catalunya romànica*, a 27-volume work covering the Romanesque of Catalonia published between 1984 and 1997:¹³⁶ this series was organised on a county by county basis, and combined a meticulous study of monuments of the 10th to early 13th century with an analysis of the surviving documentary sources. Revisions to the dating of

Duran-Porta, 2009: this may have been an abbreviation of a name which originally included a geographic identifier confirming Raimond as being of Catalan, rather than north Italian origins.

Durliat, 1989: pp.209-38.

Durliat, 1972a: pp.114-38.

Durliat, 1989: pp.209-38.

Jordi Camps i Sòria, 'Le remier art roman> en Catalogne', pp.175-86 in Vergnolle & Bully, 2012. Cf. Eduard Carbonell i Esteller, 'Algunes reflexions sobre l'arquitectura a Catalunya a l'entorn de l'any Mil', pp.387-92 in Barral et al, 1991; Jean-Pierre Caillet, 2000: pp.341-69.

Jordi Vigué (1985-90) & Antoni Pladevall i Font (1990-97) [Eds], *Catalunya romànica*, 27v. Barcelona (Fundació Enciclopèdia catalana) 1985-97.

certain monuments emphasised discrepancies in Puig's theory of a logical progression in the adoption of particular features, which was seen to have occurred in a more idiosyncratic fashion. Indications were also noted of a distinction between the design and execution of buildings dependent on monastic houses, and thus the product of a direct labour organisation (the atelier), and those promoted by lay patrons.¹³⁷

In France, a reassessment of Puig's theories was the focus of a conference organised in the Franche-Comté in 2009, where a summary of relevant monographs and an overview of their impact on modern interpretations of the First Romanesque was undertaken by Éliane Vergnolle.¹³⁸ Particular attention was paid to the results obtained by archaeological procedures which were not available to Puig, and which allowed a more nuanced interpretation of the early developments in Romanesque architecture: to paraphrase Vergnolle, academic views of the period have passed from the panoramic to the microscopic.¹³⁹ The resurgence in interest was further marked by a 2014 edition of the *Bulletin monumental* devoted to modern interpretations of the First Romanesque in each of the regions where it took root.¹⁴⁰

One effect of recent scrutiny was to extend the critical analysis of Puig's theories into the area of the masonry itself, the one feature of the style consistently held to be diagnostic of First Romanesque building practice. As a result, the term 'hammer split' no longer suffices to describe the techniques used in the production of *petit appareil* which, in some cases, shows a degree of sophistication previously considered distinctive of Second Romanesque

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¹³⁷ CR [1], p.51.

Éliane Vergnolle, 'Le << premier art roman>> de Josep Puig i Cadafalch à nos jours', pp. 17-64 in Vergnolle & Bully, 2012, op.cit.

^{.39} *Ibid.*

¹⁴⁰ Bulletin monumental [174:1] 2014.

practice.¹⁴¹ This point is of particular relevance to the current study, a key element of the analysis of rural churches being extent to which the masons of Conflent were willing or able to reproduce uniform fabric, and thus its perceived significance in the mind of First Romanesque patrons.

Scientific analysis of the fabric completed a process of deconstruction where each supposedly normative feature of First Romanesque architecture was subjected to reevaluation, and many buildings previously considered indicative of its linear development assigned – for one reason or another – to collateral evolutionary pathways. As a result, a modern map charting the spatial distribution of the style bears little resemblance to that originally drafted by Puig, and focuses attention on three key areas – Lombardy, Burgundy and Catalonia – where the design and execution of early 11th century churches best show a commonality of approach.¹⁴²

The theoretical framework proposed by Puig nevertheless continues to provide a point of departure for modern studies of early Romanesque religious architecture, and the term 'First Romanesque' remains embedded in the vocabulary of academic and popular studies of buildings erected in dispersed areas of Europe in the early decades of the 11th century. As the present work privileges the practical rather than the theoretical - a 'bottom up' rather than 'top down' approach – there appears no good reason to break with this convention. It is, after all, the three diagnostic features of the style having most impact on local builders – the fabric, external decoration and nave vaulting - which emerge relatively unscathed from later criticism.

Daniel Prigent, 'Le petit appareil: methods d'analyse et premiers résultats. L'exemple du Val de Loire', *BM* [174:1] 2014: pp. 189-204.

¹⁴² Cf. Vergnolle, 2009: map, p.44; Puig i Cadafalch, 1930: pp.9-48 & map.

To some extent, the concentration on these three elements also resurrects Puig's early view that new building systems tended to spread within the craft fraternity itself, and were adopted because of their perceived advantages over traditional methods. It is the contention here that this alternative pathway for the introduction of First Romanesque aesthetics and techniques was particularly relevant in Conflent, as is the proposition that, once assimilated, such systems were resistant to change.

This point highlights the pitfalls of setting rigid time limits to an architectural period, especially in a province where divergent chronologies in the internal dynamics of the style emerge from one area to another. These were governed by a number of factors, but specific to Conflent were those relating to the qualities of native stone, and the proficiency of indigenous masons in its handling and treatment. Here the coincidence in the appearance of petit appareil north and south of the Pyrenees in the first decades of the 11th century contrasts with the delayed introduction of dressed stone and sculpted ornament, two technical advances used by Puig to define the Segon art romànic (Second or Mature Romanesque). The arbitrary division between the two phases, set as early as 1060 in more geologically favourable conditions, cannot therefore be established locally before the mid 1100s.

The belated application of Second Romanesque techniques to the treatment of stone north of the Pyrenees does, however, have the advantage of providing insights – in the context of rural churches - into the gradual fall from grace of the dominant features of the preceding style. It certainly demonstrates that when activity at high-status sites within the region was at a standstill, indigenous masons were reduced to 'feeling their way' towards a

more sophisticated use of native materials.¹⁴³ The analysis of First Romanesque churches of Conflent undertaken here is intended to reveal that a similar evolutionary process occurred at the beginning of the 11th century, and was - at least in part – generated by lay sponsors and the craftsmen in their employ.

This was the phrase, derived from the verb *tâtonner*, frequently used by Viollet-le-Duc to explain the *suite de transitions sans arrête* which marked medieval architectural developments. However, in the nominal form – *tâtonnement* – it refers more generally to the process of trial-and-error. See *Dictionnaire raisonnée*, v1. Préface, V, VIII; v4. pp.1-11.

Chapter 2

Medieval Catalonia: the historical context.

Documentation.

Details of political developments from the late 9th to the early 12th century in Catalonia suffer from the lack of a compelling narrative history of the period, the only references to specific events being in the form of annotations to chronologies of the Frankish kings issuing from local monastic houses.¹⁴⁴ The earliest work incorporating regional rather than Carolingian dynasties is the *Chronicon alterum rivipullense*, which probably dates to the first half of the 11th century; a more comprehensive compilation, the late 12th century *Gesta Comitum Barcinonensium*, is unfortunately of negligible significance when dealing with the rise of the comital families.¹⁴⁵

The extension of Carolingian control north of the Pyrenees, the fall of Barcelona and the consolidation of the newly-conquered territory under Louis the Pious are, however, related in two Frankish accounts: the *Chronicon Moissiacense* (to 818),¹⁴⁶ and the *Annales regni Francorum* (to 829).¹⁴⁷ A third, the *Annales bertiniani* (to 882) covers the period following the accession of Charles the Bald when individuals of Visigothic descent were first delegated to administer the Spanish March.¹⁴⁸ These were amongst the sources used in

Michael Zimmermann, 'La prise de Barcelona par Al-Mansûr et la naissance de l'historiographie catalane', Actes des congrès de la Société des historiens médiévistes de l'enseignement supérieur public, [8] Tours, 1977, pp.191-218.

Gesta comitum barcinonensium, Chròniques catalanes v2. [Ed.] L. Barrau Dihigo & J. Massó i Torrents, Barcelona (Institut d'Estudis Catalans) 2007. The lineage and rise to power of Guifred le Velu described are inaccurate in all respects: see Roger Collins, 'Charles the Bald and William the Hairy', in *Charles the Bald: Court and Kingdom*, Colloquium, London, 1979, [Eds.] Margaret Gibson & Janet Nelson, Oxford (BAR International Series [101]) 1981; Pierre Ponsich, 'Wifred le Vélu et ses frères', Annals del Centre d'Estudis Comarcals de Ripollès (98-99) 2000, pp.55-86.

Chronicon Moissiacense Maius. A Carolingian world chronicle from the Creation until the first years of Louis the Pious, [Tr. & Ed.] David Claszen & J. M. J. G. Kats, [thesis] 2012, Leyden University.

Annales regni Francorum, inde ab a.741 usque ad a. 829: qui dicuntur Annales laurissenses maiores et Einhardi, [Eds.] Friedrich Kurze & Georg Heinrich Pertz, Hanover, 1895.

Annales bertiniani, [Ed.] Georg Waitz, Monumenta Germaniae Historica, Hanover 1883; for modern English version see Janet L. Nelson, The Annals of St-Bertin, Manchester (Manchester University Press) 1991.

composing the 17th century *Histoire du Languedoc* which provides the basis for modern interpretations of early medieval Catalan history.¹⁴⁹

Further information can be extracted from cartularies dealing with the affairs of monastic and comital houses. The *Liber feudorum maior*, a 12th century compilation drawn up for the counts of Barcelona survives in abbreviated form, and deals predominantly with administrative rather than religious affairs. This material is supplemented by the chronicles of two Córdoban commentators: a *History* compiled by Ibn al Qūtīya (†977), a descendent of Witiza, the last claimant to the Visigothic throne, and covering the period up to 930; and incomplete accounts of the rise of the *taifas* attributed to Ibn Hayyān (†1076). 152

Written sources relevant to the dating of First Romanesque religious sites in Conflent are fragmentary, the archives of local monastic houses having been largely destroyed during the French Revolution. Amongst the losses are two cartularies compiled at Saint-Michel de Cuxa, the earlier *Cartoral maior* dating to the 12th century.¹⁵³ However, a number of documents from these and other foundations were copied in the early 17th century by Pierre de Marca, successively bishop of Couserans and archbishop of Toulouse, and a trusted administrator in the service of Louis XIII.¹⁵⁴ These are invaluable in furnishing evidence of the relationship between the local Benedictine houses and outside agencies: the comital family

Dom Claude de Vic & Dom Joseph Vaisette, Histoire générale de Languedoc, 10v. Toulouse, 1840.

Adam J. Kosto, 'The *Liber feudorum maior* of the counts of Barcelona: the cartulary as an expression of power', *Journal of Medieval History* [27:1] 2001, pp.1-22.

David James, Early Islamic Spain. The History of Ibn al Qūtīya, London & New York (Routledge) 2009.

For an overview, see Virgilio Martínez Enamorado, *Ibn Hayyan, el abanderado de la historia de Al-Ándalus*, Madrid (Consejo Superior de Investigaciones Científicas) 2008.

Liber feudorum Ceritaniae, Arxiu real de Barcelona, No.4; for summary, Marta Punsola i Munarriz, 'Liber feudorum ceritaniae: Cerdanya mil anys enrere', Revista Cultural de Cerdanya, 2012, pp.16-19.

Pierre de Marca, Marca Hispanica, sive limes hispanicus, hoc est geographica & historica description Cataloniae, Ruscinonis & circumjacentium populorum, Paris 1688. [Facsimile: Barcelona (Base: Apographa historica Cathaloniae) 1998]

of Cerdagne-Conflent, the later Frankish monarchs and the Papacy. Extant documents dealing with the affairs of local monasteries from the 9th to the 11th centuries are also listed in *Catalunya carolíngia*, a series of volumes initiated by Ramon d'Abadal, ¹⁵⁵ and in a later work by Ramon Ordeig i Mata. ¹⁵⁶

There is, however, a paucity of material relating to the rural churches of Roussillon that hampers attempts to establish an accurate chronology of architectural developments in the region. References to buildings of 9th and 10th century origin are listed in a comprehensive analysis of toponymic evidence undertaken by Pierre Ponsich,¹⁵⁷ but few consecration charters survive to witness their remodelling in First Romanesque style. In Conflent, for example, secure 11th century completion dates are limited to a group of eight surviving monuments in the centre of the county.

Roman infrastructure, the Visigothic state and Muslim invasion.

The medieval *comté* of Conflent was one of the quasi-autonomous administrative units of the *Marca hispania* (Spanish March) established by Charlemagne after 785 to consolidate territory newly captured from Muslim Spain [13].¹⁵⁸ Encompassing the central Têt valley, it extended westwards from the Col de Ternère, marking the limits of the Roussillon coastal plain, to the rim of the Cerdagne plateau. Its breadth was confined to the north by the watershed of the Fenouillèdes range, and to the south by the crest of the Pyrenees. It rarely existed as an independent polity, being successively amalgamated during

Catalunya carolíngia, Barcelona (Institut d'Estudis Catalans) 1986- ; especially serial 6 [2v], Els comtats de Rosselló, Conflent, Vallespir & Fenollet, 2006, [Ed] Pierre Ponsich, Ramon Ordeig i Mata.

Ramon Ordeig i Mata, *Les dotalies de les eglésies de Catalunya*, 6v. Vic (Estudis històrics) 1996.

Pierre Ponsich, 'Limits històrics i repertori toponímic dels llocs habitats dels antics <Països> de Rosselló-Vallespir-Conflent-Capcir-Cerdanya-Fenolledès', *Revue 'Terra Nostra'* [37] 1980.

Jean Sagnes, *Le Pays Catalan*, 2v., Pau (Société Nouvelle d'Éditions Régionales et de Diffusion) 1983, pp.155-63.

the 9th century with the neighbouring regions of Razès, Rosselló and Cerdagne. It was the last of these incarnations which endured, the dynasty founded by Miró II in 897 retaining control of the county until the death of Bernard Guillem in 1117, when the male line of the comital house of Cerdagne-Conflent was extinguished, and overall authority reverted to the count of Barcelona.

Conflent was not, however, a new construct, the natural boundaries of the region having been recognised as early as the 2nd century BCE, when it constituted one of the nine *pagi* of the *civitas Ruscinonensis*, a Roman entity controlling newly conquered territory between the provinces of *Gallia Narbonensis* and *Hispania*. Its strategic importance lay in the Têt valley being an axis of communication between the coast and the garrison at Llívia (*Julia Libica*), which monitored a major north-south route across the Cerdagne plateau via the headwaters of the Sègre and Ariège rivers. 160

The incidence of Latinised place names suggests a period of sustained colonisation, ¹⁶¹ but early conversion to Christianity is a matter of conjecture: urban development and an agrarian system based on the villa economy were under-represented in Roussillon, thus removing two potential agencies for the dissemination of the new faith. ¹⁶² There is no evidence for the rise of an artisanal class receptive to its tenets, or of a landed aristocracy which might have encouraged it by building private estate churches. ¹⁶³ Transit along the

A L F Rivet, Gallia Narbonensis: Southern Gaul in Roman Times, London (Batsford) 1988, pp. 43-44.

Jacques Freixe, 'La voie romaine du Roussillon et ses embranchements', *Congrès archéologique de France* (*Carcassonne-Perpignan*) 1906, Paris (A. Picard) 1907, pp.485-508; Jean-Pierre Comps, 'De Roussillon en Conflent. La lente mise en place du réseau routier de l'Antiquité à nos jours', *Domitia* [8-9] 2007, pp.15-23; V. Fariás Zurita, 'La configuration d'un réseau routier medieval. L'exemple de la Catalogne aux XI^e – XIII^e siècles', *Études roussillonnaises* [20] 2003, pp.89-96.

For early place-name evidence in the region: Pierre Bonnassie, *La Catalogne au tournant de l'an mil*, Paris (Albin Mortine Roussillon de Paris (Albin 2008) 1000 pp. 2003. Contraite Martine Roussillon de Paris (Albin 2008) 1000 pp. 2003 pp. 400 pp. 4

Michel) 1990, pp.29-30; Catherine Martinez & Nicole Rossignol, 'Le peuplement du Roussillon, du Conflent et du Vallespir aux IXe et Xe siècles', *Annales du Midi* [87:2] 1975, pp.139-158.

Rivet, 1988: pp. 130-143, and especially the map (p.133) where the density of known *villae* in the Aude delta contrasts with the isolated examples found in the vicinity of *Ruscino* and *Illiberis*.

Agencies involved in the spread of Christianity prior to the Edict of Constantine (313) are discussed in R. MacMullen, *Christianizing the Roman Empire, AD100-400*, New Haven (Yale University Press) 1984, pp.25-42; also Robert

coast by land and sea nevertheless exposed the province to contemporary philosophical currents: staging posts were placed at intervals along the *Via Domitia*, and the two main Iron-Age hill-forts which dominated the plain, at *Ruscino* (modern Chateau Roussillon) and *Illiberis* (Elne), developed into minor urban centres, the former enjoying a brief importance as a *colonia Latina*. Smaller settlements were associated with the natural harbours at *Portus Veneris* (Port Vendres), *Caucoliberis* (Collioure) and *Cervera* (Cerbère), which catered to coastwise trade, and others grew up in the valley of the Tech and around the important iron-mining site at *Avetera* (Batère). 165

In the third century CE, moves to consolidate the new faith were directed from Narbonne, where a bishop had been installed during the conversion of Gaul: there was no such appointment in *Ruscino* or Elne, and no archaeological evidence survives for the existence of places of worship in either location. However, accounts of the death of the emperor Constans (r.337-350) speak of his seeking refuge in a 'sacred building' in *Illiberis* prior to his assassination, the implication being that this must have been a Christian sanctuary. The town had been adopted by Constantine I (r.306-337) as the administrative

M. Grant, Early Christianity and Society, London (William Collins) 1977, pp.146-49; J. Gaudemet, 'Société religieuse et Monde laïc au Bas-Empire' in Église et Société en Occident au Moyen Âge, Aldershot (Variorum) 1984, pp.86-102.

For the Roman presence in Roussillon specifically, see A. Marcet i Juncosa, , *Abrégé d'histoire des terres catalanes du nord*, Canet, Roussillon (Editions Trabucaire) 2009, pp.16-27.

¹⁶⁵ *Ibid.* The remains of a Roman vessel which foundered at Port Vendres have yielded ingots of tin, copper and lead believed to originate in Baetica: as there would have been a limited market for such goods in Roussillon itself, the ship was probably destined for Italy.

Gregory of Tours, *Historiae francorum* I 28, [Tr] M Guizot, Paris (Didier) 1862; p.26.

Edward Gibbon, *The Decline and Fall of the Roman Empire*, New York (P.F.Collier & Son) 1900, v2. p.117. The placing of early church buildings in the late Roman urban setting is discussed in Paul-Albert Février's article, 'Towns in the Western Mediterranean' in *European Towns: their Archaeology and Early History*, [Ed] M W Barley, London (Academic Press) 1977, pp.315-42. See also Gisela Ripoll López, 'The Transformation and Process of Acculturation in Late Antique Hispania: Select Aspects from Urban and Rural Archaeological Documentation', pp.263-283 in *The Visigoths*, [Ed] Alberto Ferreiro, Leiden (Brill) 1999.

centre of the region following the decline of *Ruscino*, ¹⁶⁸ but little is known of its civic or religious architecture.

A more compelling narrative for a Christian presence in the region is furnished by events linked to the decline of Rome, and the redeployment of Visigothic feodorati to western Gaul in the early decades of the 5th century. 169 These tribes had already embraced Christianity, albeit the Arian strand of the faith, and experienced a degree of acculturation during a period as military auxiliaries of Rome based in Dacia. 170 In 415, they were ceded rights of settlement in Aquitania by the Emperor Honorius (r. 393-423) in return for service in the Imperial cause, ¹⁷¹ but the compact was short-lived. By the latter half of the 5th century an independent kingdom with its capital at Toulouse had been established, rapidly expanding to include much of Gaul south of the Loire, and extensive areas of central Spain, where Imperial administration was restricted to the Ebro valley and enclaves along the populous Mediterranean shore. The territory north of the Pyrenees was severely reduced when the Franks under Clovis succeeding in routing the Visigothic forces - and killing their king, Alaric II, - at Vouillé (nr. Carcassonne) in 507. The whole of Aquitania was overrun, although Septimania - the Narbonensis, the eastern Pyrenees and the Roussillon plain - remained an outpost of a Visigothic state whose centre of gravity shifted inevitably to Spain.

The long-term impact of the Visigoths on both Septimania and Iberia was rooted in their distinct linguistic and cultural identity, which set them apart not only from the Franks

¹⁶⁸ Illiberis was renamed Elena by Constantine I in memory of his mother.

Marie-Geneviève Colin, 'Christianisation et peuplement des campagnes entre Garonne et Pyrénées, IV-X siècles', Archéologie du Midi Médiéval [Supplément No.5] Carcassonne (Centre d'archéologie médiévale du Languedoc) 2008; J. N. Hilgarth, 'Popular Religion in Visigothic Spain', pp.3-56 in E. James [Ed], Visigothic Spain: New Approaches, Oxford (Clarendon Press) 1980.

Ralph W. Mathison & Hagith S. Sivan, 'Forging a New Identity: the Kingdom of Toulouse and the Frontiers of Visigothic Aquitania (418-507)', pp.1-62 in *The Visigoths: Studies in Culture and Society*, [Ed] Alberto Ferreiro, Leiden (Brill) 1999.

¹⁷¹ *Ibid.*

to the north but from the Gallo- and Hispano-Roman populations of the newly-settled territories, who subscribed to the Catholic orthodoxy as determined in Rome.¹⁷² A 'two nation' policy adopted during the early phase of occupation proved unsustainable in Septimania, where intermarriage between Goth and Frank became an important factor in maintaining the stability of the frontier, and had repercussions on later governance of the territory.¹⁷³

Differences of doctrine caused friction in the parallel universes of Arian and Catholic churchmen, but no systematic attempt was made by the Visigothic regime to suppress the pre-existing Church organisation, which by the early 6th century had evolved to such complexity that it replaced many of the administrative functions previously undertaken by the state.¹⁷⁴ Its success in the suppression of paganism is unclear, although some progress north of the Pyrenees later in the century has been inferred from the reorganisation of the archdiocese of Narbonne, with the bishoprics of Nîmes, Uzès, Lodève and Béziers being revived, and new ones created for Elne and Carcassonne. ¹⁷⁵

The announcement by Reccared (r.586-601) of his conversion to Catholicism at the 3rd Council of Toledo in 589 removed the last stumbling-block to an integration of the two

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Doig, 2008: pp.139-42.

The numerical inferiority of the Visigoths in the territory under their control and the gradual process of acculturation is discussed in William D. Phillips Jr & Carla Rahn Phillips, *A Concise History of Spain*, Cambridge (CUP) 2010, pp.33-37; for the conciliatory politics of Pepin and Charlemagne during the reconquest of the region, see Cullen J Chandler, *Carolingian Catalonia: politics, culture and identity in an imperial province, 778-987*, Cambridge (CUP) 2019, pp.24-47.

The resilience of Roman Catholicism and its increasing influence is illustrated by the frequent Church Councils held in northern Spain throughout the 6th century: at Tarragona (516), Lleida (546), Zaragoza (592) and Huesca (598); Brian Catlos, *The Victors and the Vanquished: Christians and Muslims of Catalonia and Aragon 1050-1300*, Cambridge (Cambridge University Press) 2004, p.27. This contrasts with the early phase of Visigothic rule, when such meetings are not recorded, although common in Gaul; Mathison & Sirvan, 1999: p.37.

Paganism appears to have been endemic in the Visigothic kingdom into the 7th century; Stephen McKenna, *Paganism and Pagan Survivals in Spain up to the Fall of the Visigothic Kingdom*, The Library of Iberian Resources Online, www.curriki.org/oer/LIBRO (accessed 28.06.2020: no date or page numbers). The first recorded episcopal appointment at Elne is dated to 571 in the chronicle of John of Biclar: Kenneth Baxter Wolf, *Conquerors and Chroniclers of Early Medieval Spain*, Liverpool (Liverpool University Press) 1990, pp.1-11 (context), p.66 [22] (reference). See also, Pierre Ponsich, 'Origine et formation des paroisses et des églises rurales du diocese d'Elna', *SMC* [30] 1999, pp.30-54.

religious institutions.¹⁷⁶ This move increased the political influence of the Church during the 7th century, however, and further complicated the issues involved in the transfer of power on the death or dethronement of the king: to supporters of the dynasty and their rivals who favoured elective kingship was added a third force of bishops who, although emanating from the same noble class, had different interests to protect.¹⁷⁷ Dissent within government circles was a contributory factor in the failure to counter the small force of Arabs and Berbers under Tariq ben Ziyād which raided the peninsula in 711. Roderic's *coup d'état* on the death of Witiza the previous year curtailed the ambitions of the dynasty founded by Egica (†693), but was not universally accepted: one possible explanation of Tariq's invasion was that it was at the invitation of local magnates opposed to the new regime. Resistance to Roderic in Septimania, directed by Witiza's son, Akhila, diverted attention from the situation in the south, and within three months of a Muslim bridgehead being established the Visigothic army had been destroyed, and Toledo occupied. Reinforcements arrived from North Africa the following year, and the advance continued northwards to embrace the rest of the peninsula.

Effective challenges to the invasion force were restricted to the north, with differing outcomes on either flank of the Pyrenees. A local defeat of the Muslim forces in the Cantabrian Mountains in the far north-west ensured a continuing Christian dominance in Galicia, and there is some evidence that enclaves around Pallars and Ribagorça, in the centre of the cordillera, maintained their autonomy. ¹⁷⁸ In the east, however, the struggle was more

Wolf, 1990, pp.9-10.. The process was initiated at a synod held in 580 to reconcile the two strands of the faith following open hostilities between Reccared's brother, Hermenegild, and their father Leovigild (r.568-586) over the treatment of orthodox Christians. The eventual concordat was largely accepted by the aristocracy of Iberia, but prompted a revolt in Septimania. Cf. Roger Collins, *Visigothic Spain*, Oxford (Blackwell) 2004: pp.64-65.

Jerrilynn D. Dodds, *Architecture and Ideology in Early Medieval Spain*, Pennsylvania (Pennsylvania State University Press) 1989; for Visigothic involvement in the church hierarchy, and as patrons of religious building programmes, pp.13-14. Cf. McKenna, undated: the friction between Church and State was epitomised by the failure of Reccesswinth (r.653-675) to hold council with his leading clergy, subsequently given as cause for a decline in the management of ecclesiastic affairs.

Antoni Pladevall & F Català Roca, Els monestirs Catalans, Barcelona (Edicions Destino) 1968, p.31ff.

short-lived: Witiza's son, Akhila, succeeded in retaining control of Septimania until ca.718, but the last Visigothic opposition was crushed when Narbonne finally fell in 720.

The degree to which a Muslim presence north of the Pyrenees was intended as a move to permanent settlement is difficult to judge. Unlike the situation in the north-west, where the population had maintained a strong sense of independence from the time of the Roman occupation of the peninsula, Septimania was an integral part of the Visigothic kingdom, and its ruler a legitimate figurehead for any potential uprising against the incomers. The garrisons established on the Cerdagne plateau and along the Aude valley were not, however, merely a defensive measure, but a springboard for sallies into Frankish territory. One of these, initially launched to suppress a Berber revolt backed by count Eudes of Toulouse, led ultimately to defeat by the forces of Charles Martel at the Battle of Tours, in 732.¹⁷⁹ The action was hailed by Christian chroniclers as a pivotal moment in the containment of Islam, but a subsequent campaign in the Narbonensis failed to dislodge the enemy from Septimania, and it was only with the fall of Narbonne in 759 that Frankish forces were able to subdue all the territory north of the Pyrenees.¹⁸⁰

Impetus for the next major Frankish advance came from south of the Pyrenees after the accession of Charlemagne in 768, with Sulaiman al-Arabi, *wali* of Barcelona, sending a legation to Germany in 777 appealing for aid in his attempt to gain independence from Córdoba.¹⁸¹ In the following year two Frankish armies crossed into Spain and laid siege to

Eudes, Count of Aquitaine, was a subordinate of the Frankish monarch, but enjoyed *de facto* autonomy after the civil war in the Merovingian kingdom between 715-18: his marriage into the Muslim ruling family in Cerdagne was an attempt to bolster the southern border of his possessions. See A R Lewis, *The Development of Southern French and Catalan Society, 718-1050*, Austin (University of Texas Press) 1965, pp.20-23

lbid. pp. 24-25, 67, 124-26. A seven year siege only succeeded when the sensibilities of local aristocrats were addressed, leading to a degree of self-government and the continuance of Visigothic legal practice.

The enterprise was agreed at Paderborn in 777; Ibn al-Arabi was acting in concert with the rulers of Zaragoza and Huesca: Joaquim Nadal Farreira & Philippe Woolf, *Histoire de la Catalogne*, Toulouse (Privat) 1982, pp.237-39.

Zaragoza, but were forced to withdraw after being abandoned by their putative allies. Despite this setback, more localised action saw Girona declare for the Carolingians in 785, although it was soon recaptured, and Urgell-Cerdagne transfer its allegiance in 789.¹⁸² In the last years of the century parts of Ausona were occupied by Borrell, count of Urgell, whilst Louis, Charlemagne's son, attacked Lérida and Huesca without achieving permanent territorial advantage. However, in 801, a more substantial force under count Guilhem II of Toulouse succeeded in capturing Barcelona and linking the various pockets of Carolingian territory into a contiguous belt north of the Llobregat river.¹⁸³

Carolingian administration and the rise of local comital families.

In 817, Louis the Pious established a discrete political entity, the *Marquisat de Gothie*, with the series of newly-designated Marcher counties being merged with those of Septimania.¹⁸⁴ Despite the frontier areas to either side of the Pyrenees being susceptible to Muslim attack, a military commander with overall authority for the region was seldom appointed, the Carolingian kings preferring instead to nominate prominent *vassi* to govern individual or grouped administrative districts [14a]. In the early years of the *Marquisat*, these roles were frequently filled by members of the ruling house of Toulouse: Bera, assigned to administer the strategic territory centred on Barcelona, was the eldest son of count Guilhem II of Toulouse by his first, Visigothic wife, his appointment recognising both the crucial part troops from Septimania had played in the conquest and the sensitivity of local barons to an

Lewis, 1965: p.40. Pallars and Ribagorça had already passed under the control of the counts of Toulouse by ca.781. Cf. Farreira & Woolf, 1982: retaliation by Abd al-Rahman and his son, Hashim I, who recaptured Girona in 793, led to numerous Spanish Christians – *hispani* – seeking refuge north of the Pyrenees.

Marcet i Juncosa, 2009: pp.32-35; Lewis, 1965: pp. 41-46. Guilhem was a grandson of Charles Martel, and later founder of the monastery of Gellone (Saint-Guilhem-le-Désert) in the Hérault; he is synonymous with the *Guillaume d'Orange* who appears in a cycle of *chansons de geste*.

These were Barcelona, Peralada-Empúries, Girona-Besalú, Ausona, and Urgell-Cerdagne. Septimania comprised the administrative districts of Rosselló (Roussillon), Narbonne, Béziers, Maguelone, Nîmes and Razès.

increasing Frankish presence in the region [14a,15].¹⁸⁵ His half-brothers, Gaucelme and Bernard of Septimania, were later installed in Rosselló and Barcelona respectively, and at its apogee the comital house of Toulouse controlled the Mediterranean littoral from Northern Spain to Provence. Its influence ceased when its leading members became implicated in the civil war which marred the accession of Charles the Bald (840).¹⁸⁶

Once his authority had been established, Charles instigated a policy shift in entrusting the defence of the frontier to descendants of count Bellon of Carcassonne (†812), a member of the local Visigothic aristocracy [14b,16]. One of his sons, Sunifred I, created count of Urgell-Cerdagne in 834, assumed control of Barcelona-Girona and Narbonne-Carcassonne, and the title of Marquis of Gothia in 844; in the same year his brother, Sunyer I, obtained jurisdiction over the aggregated counties of Empúries-Peralada and Roussillon-Vallespir. The experiment was cut short by the revolt of Bernard of Septimania's son, Guilhem, who succeeded in occupying much of the newly-assigned territory in 848. The reaction of Charles the Bald was to revert to using military leaders from northern France to re-establish order: Aleran, count of Troyes, recaptured Barcelona in 850, but his successors were generally ineffective. From 862, the sons of Sunyer I were again in control of the coastal strip comprising Roussillon, Empúries and Peralada, whilst the senior branch of Bellon's family reappear as counts of Urgell-Cerdagne-Conflent in 870.

Martin Aurell, 'Pouvoir et parenté des comtes de la Marche hispanique (801-911)', pp.467-86 in Régine Lejan [Ed] La royauté et les élites dans l'Europe carolingienne (du début du IX^e aux environs de 920) (Actes de colloque, Lille 1997), Lille (Centre du Histoire de l'Europe du Nord-Ouest, Université Charles de Gaulle-Lille 3) 1997.

Gothic representation amongst the ruling Marcher aristocracy was assured by the family of Asnar Galindo in Ribagorça, which played a crucial role in the rise of Navarre; other counts in the region south of Narbonne are also believed to have had Gothic antecedents: see Lewis, 1965: pp.63-64; Aurell, 1997: especially genealogies pp.36, 100; Stefano M. Cingolani, *La formació nacional de Catalunya i el fet identitari dels catalans (785-1410)*, Barcelona (Generalitat de Barcelona) 2015, pp.42-49.

¹⁸⁷ Aurell, 1998.

Lewis, 1965: p.179ff;. Sagnes, 1983, pp.163-65.

A definitive event was the rise to power of Guifred I ('le Velu'), the eldest son of Sunifred I, in the crucial southern frontier counties of Barcelona-Girona-Besalú: this may have been affected by force of arms, but his authority was confirmed by the Council of Troyes in 878.¹⁸⁹ The mandate in Cerdagne-Conflent-Urgell inherited from his father was entrusted to one of his brothers, Miró I; another, Radulf, assumed a subordinate role as count of Besalú. Grouping counties under a single titular head was reminiscent on a smaller scale of the policy adopted by Louis the Pious, and coincidentally lent itself to the practice of partible inheritance enshrined in Gothic tradition.¹⁹⁰ Thus on the death of Guifred, the distribution of territory amongst his sons resulted in the founding of three separate dynasties, those of Barcelona-Girona, Urgell and Cerdagne [14b,17].¹⁹¹

In each case, the counts based their legitimacy on an increasingly notional subservience to the Frankish crown which, by the reign of Lothair (r.954-86), no longer possessed the military capacity to help stem Muslim raids into Catalonia. Carolingian precedents were reflected in the fields of revenue collection, administration of justice and the organisation of public works, and in the linking of secular and religious authorities in the

For context: Ramon d'Abadal, *Els temps i el regiment del comte Guifred el Pelos*, Ausa (Sabadell) 1989; *Els primers comtes Catalans*, Barcelona (Edicions Vicens-Vives) 1967. For specifics: Pierre Ponsich, 'Le Conflent et ses comtes du IXe au XIIe siècle', *Études roussillonnaises* [3-4] 1951; Cingolani, 2015: p.83ff.

¹⁹⁰ Georges Duby, *Histoire de la France*, Paris (Larousse) 1995, p.192ff.

The seniority of Guifred's sons as proposed by Ponsich is based on the division of territory: Sunifred received the patrimonial holding of Urgell, and is thus assumed the eldest, followed by Guifred-Borrell, who succeeded as Count of Barcelona. The three younger siblings were assigned subordinate roles: Radulf as bishop of Urgell, Miró as count of Cerdagne-Conflent (but only after the death of his uncle), and Sunyer as count of Besalú. In certain particulars this view runs counter to that given by Martin Aurell in *Les noces du comte: mariage et pouvoir en Catalogne (785-1213)*, Paris (Publications de la Sorbonne) 1995, which is reflected in the geneology established in figure 16. Cf. Josep Maria Salrach, 'El temps d'Oliba, Abat de Ripoll i de Cuixà (1008-1046) i Bisbe de Vic (1018-1046)', Querol. Revista de cultura de Cerdanya [24] 2019, pp.81-95. The concentration of power was resisted by sections of the aristocracy: one notable case was the mid-10th century attempt by Unifred, a viscount of Cerdagne-Conflent, to exercise independent legal and financial control of the territories for which he was responsible. For context, Ramon d'Abadal, *Els primers comtes Catalans*, Barcelona (Edicions Vicens-Vives) 1967b; *Dels Visigots als Catalans*, Barcelona (Edicions 62) 1969.

The subordinate titles used by local rulers – comes, marchio, dux, princeps, - reflected this tradition: Lewis, 1965, pp.197-98. As late as 899, Guifred-Borrell attended the court of Charles the Simple to formalise his inheritance of the comté of Barcelona. Lothair was the last Frankish monarch to verify the possessions of Saint-Michel de Cuxa: see Appendix I.

governance of the counties.¹⁹³ In the architectural field, the assumption by the counts of responsibility for promoting Benedictine monasticism was evident in the creation of new foundations and support for those which had survived the chaos of the early 9th century. Over the long 10th century the necessary resources were obtained by alienating property which previously formed part of the royal fisc, and which had been annexed by the comital family. This course of action was actively pursued in Conflent, where it had a major impact on the built environment, the construction of the Pre-Romanesque abbey church of Saint-Michel de Cuxa and its later neighbour, Saint-Martin du Canigou, being largely funded by members of the comital family.¹⁹⁴ It was not a sustainable policy, however, the depletion of assets leading to the counts of Cerdagne-Conflent having only a minor influence on church-building by the second half of the 11th century.

The priority given to frontier defence introduced tensions into the system of government, with powers formerly reserved to the count or his immediate entourage increasingly being delegated to members of the lesser nobility. The dilution of central authority was especially critical in regions south of the Pyrenees most vulnerable to Muslim incursions. A chain of frontier castles held in private hands not only proved an inadequate deterrent, but inhibited the ability of the count to muster sufficient force to counter attacks which were both concentrated and highly mobile. As a result, active resistance to the

¹⁹³ Cingolani, 2015: pp.87-88.

¹⁹⁴ Below,. pp.99-102; 144-147.

Flocel Sabaté, 'The Catalonia of the 10th to 12th centuries and the historiographic definition of feudalism', *Catalan Historical Review* [3] 2010, pp.31-53. Two specific examples are cited: the assassination in 957 of Guifred II, count of Besalú, by his barons, and a long-running dispute between the viscounts of Conflent and Sunifred II. Also, Pierre Bonnassie, *From Slavery to Feudalism in South-Western Europe*, Cambridge (Cambridge University Press) 1991, pp.156-62.

The granting of castles as alods and the dues levied locally to maintain the garrison fundamentally altered the social structure of Catalonia by encouraging the rise of a military caste only indirectly under the control of central authority; Lewis, 1965, pp.229-39. Cf. Thomas Bisson, *Medieval France and her Pyrenean neighbours: studies in early institutional history*, London (Hambledon Press) 1989, p.153ff.

Caliphate was replaced in the mid-10th century by a policy of *rapprochement*.¹⁹⁷ Although this strategy was successful in the short term, it was brought to an abrupt end by the rise of Al-Mansur, and the devastating *razzia* of 985 which saw the sack of Barcelona and the capture of a significant number of prisoners.

The inability or unwillingness of Hugues Capet to respond to Catalan appeals for aid in countering the belligerence of Al-Mansur marked the definitive severing of ties with the Frankish court.¹⁹⁸ The reverses suffered in 985 were, however, as much psychological as material: areas north of the Pyrenees escaped hostile action, as did inland centres south of the mountains such as Vic and Ripoll, and these are seen as instrumental in the rapid reconstruction of buildings damaged in the raid.¹⁹⁹ The disintegration of the Caliphate into a series of regional powers – *taifas* – after 1008 redressed the balance of power, and heralded a period of political and economic expansion on the part of Catalan counts acting on their own, rather than Frankish initiative.

Pierre Bonnassie, La Catalogne du milieu du X^e à la fin du X^l^e siècle: croissance et mutation d'une société, Toulouse (Presses de l'Université de Toulouse – Le Mirail) 1976, pp.59-61.

Attempts to solicit aid from the Frankish court coincided with the death of the last of the Carolingians, Lothair (†986) and Louis V (†987), and the contest between Hugues Capet and Charles of Lorraine to succeed in Francia: see Pierre Ponsich, 'Saint-Michel de Cuxa au siècle de l'an mil. Deuxième partie: après l'an mil', *SMC* [20] 1989, pp.7-27.

Eduard Carbonell i Esteller, 'La razzia d'Almansur a Catalunya l'any 985. Afectà l'arquitectura de finals del segle X?', Études Roussillonnaises offertes à Pierre Ponsich, Perpignan (Le Publicateur) 1987, pp.279-80.

Chapter 3

Conflent: the physical and human environment.

Geology and building stone.

The central zone of the Pyrenees was amongst the most hostile geological environments encountered by medieval builders, having been subjected to successive orogenic events whose legacy lay in the heavily deformed rock formations typical of the region. The first of these occurred during the Hercynian period (ca.310my >), when sedimentary and igneous material of Precambrian and Palaeozoic age forming the core of the range was subject to severe distortion, and converted into strongly laminated schists, various types of gneiss and occasional beds of marble. The effects diminished in intensity in the northern foothills, and produced a sequence dominated by varieties of schist, but with an important outcrop of Devonian marble centred on Villefranche-de-Conflent. The renewed igneous activity in the later stages of this phase generated intrusive granites which outcrop in the eastern Fenouillèdes, in the northern section of the Cerdagne plateau and in the central area of the Canigou massif.

A second episode ensued during the Alpine period (ca.65my >), the collision of tectonic plates inducing the major east-west fault-line which constitutes the present-day boundaries between the dissimilar lithologies of the Canigou Massif and the Fenouillèdes. Finally, a process of isostatic adjustment combined with extreme climatic conditions during the Miocene period (ca.23-7my) saw rapid erosion of the uplands, with coarse agglomerates accumulating on the flanks of the massif. Apart from limited alluvial deposits laid down more recently in the river valleys, these constitute the only sedimentary formations of the

region[18].²⁰⁰ This later phase created a zone susceptible to seismic activity which continued to be felt in the medieval period, leading to the damage or destruction of a number of prominent churches. The effects were less severe in Conflent than in areas nearer the coast, however, although a number of monuments still bear the scars of past earthquakes.²⁰¹ To some extent, the county profited from its shallow soils, which enabled local builders to dispense with the deep foundations which facilitated the transmission of shock waves through the above-ground fabric.

For the purposes of this study, the complications of the geological landscape of the Conflent area can be reduced to manageable proportions by a simple tripartite division. The principal fault line along the Têt valley approximates to the boundary between the heavily metamorphosed rocks of the Pyrenean core and the more lightly deformed strata of the Jujols and Canaveilles series underlying the Fenouillèdes to the north. Schists also outcrop in massive form in the upper Têt valley and to the east of Canigou, where they constitute the dominant facies of the neighbouring Aspres region. The third zone comprises the igneous intrusions at either end of the Fenouillèdes: the Millas granite batholith to the east, and those of Mont Louis and Quérigut on the Cerdagne plateau [19]. The physical barriers erected by the terrain constrained masons to rely exclusively on native stone for their buildings, the geology of each sector thus being visible in the fabric of local churches throughout the 10th and 11th centuries [20]. Complex localized faulting adjacent to some sites has, however,

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Bernard & Alexandre Laumonier, 'Géologie et Art Roman: pierres romanes du Conflent (Pyrénées-Orientales), pp.483-96 in M. Martzluff [Ed], Roches ornées, roches dréssées. Aux sources des artes et des mythes. Les hommes et leur terre en Pyrénees de l'Est. Actes du colloque en hommage à Jean Abélanet, Perpignan (Presses universitaires de Perpignan)

For Saint-Martin du Canigou see below, p.185. Another casualty was the abbey church of Sainte-Marie de Marcevol, where the northern collateral had to be rebuilt: see Géraldine Mallet, *Églises romanes oubliées du Roussillon*, Montpellier (Presses du Languedoc) 2003, pp.184-85.

These occur as outliers south of the fault line in the Upper Têt valley, and also underlie the neighbouring *Aspres* region to the east of the Canigou Massif.

caused different rock formations to outcrop in close proximity, potentially allowing masons a degree of discrimination in the stone selected for specific purposes within the building: their willingness or failure to do so will be discussed on a case-by-case basis in later chapters

Gneiss, the predominant rock of the northern slopes of Canigou, typically presents as hard, crystalline material which shatters in a random fashion to leave irregular blocks lacking the smooth surface desired in a facing material. Varieties range from the *gneiss oeillé* – where deformation of the original granite produced large 'eyes' of white feldspar within the coarse banding of the matrix – to finer-grained, more micaceous varieties of orthogneiss. Neither the gneiss nor the associated horizons of banded schist were ever systematically worked, but an important late Hercynian leucogranite intrusion to the east of Casteil was exploited in the construction of Saint-Martin du Canigou [21,22]. This is distinguished by being of lighter colour than the granodiorite of Quérigut or Millas, and more resistant to weathering: limited working of the exposed outcrops may have occurred later in the period, but at Saint-Martin the bulk of the material probably obtained from the extensive scree slopes which surround the site. 204

Both these rock types assume greater significance as surface deposits, recurring as rounded boulders in river beds, or in more angular form in the Miocene agglomerates which form the ridges between neighbouring valleys on the northern flanks of the massif [23]. Typical masonry assemblages of the area comprise stone derived from both sources in a variable ratio between blocks showing signs of water erosion and those which have been subjected to mechanical wear: these characteristics are evident in the fabric of all the First

Guitard G, Laumonier B, Autran A, Bandet Y, Berger G.M. *Notice explicative, Carte géologique de la France*, 1/50 000, Feuille Prades (1095). BRGM – Service géologique national, 1998, pp.17-38.

Laumonier & Laumonier, 2005.

Romanesque churches south of the Têt and continue to predominate in those of the 12th and 13th centuries [24].²⁰⁵ In buildings attributed to this later period it is possible to distinguish between quarried granite and that derived from a sedimentary source, the latter being appreciably more susceptible to weathering [25].²⁰⁶

The agglomerate ridges are generally stable despite having been stripped of their primary forest cover, but isolated examples of differential erosion have occasionally given rise to 'ribbed' or 'folded' cliff faces.²⁰⁷ It is possible, although unverifiable, that in certain locations the feature derives from periodic quarrying which may date back to the medieval period: the restricted exposures at Fuilla, Vernet-les-Bains and Vinça, for example, are notable for their proximity to the sites of First Romanesque monuments where comparable material is present in the fabric.

North of the Têt, the type series of the Fenouillèdes consists of mudstones, shales and limestones which have been converted primarily into schists, but interleaved with occasional bands of marble, gneiss, metagreywackes (a coarse, crystalline derivative of sandstone) and quartzites. All were employed by medieval masons, either as general building stone in the case of schist, or for more specialised purposes such as the production of *lauzes*, the thick roof tiles typical of Conflent churches [26]. Fine green, strongly-laminated micaschists predominate in the central Têt valley, where they comprise the bulk of the fabric of churches built north of the river. Adjacent to the Cerdagne plateau and to the east of Canigou these

205

Ibid.

206 Ibid

The most celebrated site is that of 'Les Orgues', north of Ille-sur-Têt, where the elements have acted on an agglomerate outlier to produce a landscape reminiscent of the American badlands.

For detailed information on the stratigraphic sequence, see M. Jaffrezo, *Guide géologique regional: Pyrénées orientales & Corbières.* (Masson) 1992, pp. 169-73.

The material is frequently referred to in toponyms north of the Têt; for example at the *Coll de la Llosa* near Talau.

are replaced by a more massive form of the stone, yielding blocks which can be of considerable size. In Second Romanesque buildings the ability to carve and polish such material led to its being used for decorative components, notably at Sainte-Marie de Serrabone (*Aspres*) [27,28].

White marble from the base of the series was extracted at Py and Canaveilles, but the most prized deposits were those found at Villefranche, where the greyish rock is veined in shades ranging from purple to pink. The sculptors of 12th century cloisters and tribunes favoured the lighter *flambé* and *fleur de pêcher* varieties, but a wider range of colours was used in framing doorways and window openings of rural churches, and frequently chosen to contrast with less expensive native stone and thus create a polychrome effect [29].²¹⁰

Early use of schist for general building work was restricted in the central Fenouillèdes to blocks obtained from extremely fissile formations, these rarely exceeding 15cm in depth, and naturally lending themselves to horizontal coursing. Bedding planes were irregular, however, and only superficial attempts were made to ensure even coursing either within sections of the building or around its envelope. As a result, the fabric included a high proportion of interstitial packing, and a correspondingly lesser resort to mortar as a

This term disguises the variety of marbles extracted in the vicinity of Villefranche, which range from the dark redpurple griotte to the pale pink fleur de pêcher: for details, see Michel Martzluff & Pierre Giresse, 'Une carrière de marbre en Roussillon: Les Pedreres (Bouleternère), source méconnue du bâti monumental medieval et modern. Archéologie et lithologie', pp.263-98 in Passarius et al [Eds], Archéologie d'une montagne brulée. Massif de Rodès, Pyrénées Orientales, Canet (Éditions Trabucaire) 2009. The traditional view is that local examples of white marble prior to the 12th century were exclusively reworked material derived from monuments in more significant Roman settlements, with Narbonne being the source commonly cited: see, for example, Pierre Ponsich, 'Chronologie et typologie des cloîtres romans roussillonnais', SMC [7] 1976, pp.75-97; 'L'évolution du portail d'église en Roussillon du IXe au XIVe siècle', SMC [8] 1977, pp.175-99. However, recent research raises the possibility that Céret marble was used both for the carved lintel at Saint-Génis des Fontaines and the sculpted blocks inserted in the western façade both there and at the neighbouring churches of Saint-André de Sorède and Sainte-Marie d'Arles sur Tech. Less certain is the source of the marble used in the 'lobed' altar tables typical of both Catalonia and Languedoc: in a number of cases this is indisputably reworked stone, but in others the use of local material cannot be entirely discounted. See Géraldine Mallet, 'De l'usage des marbres en Roussillon entre le XIº et le XIVe siècle: la sculpture monumentale', Patrimoines du Sud [4] 2016: http://journals.openedition.org/pds/1029 (accessed 13.02.2021: no page numbers); also, 'De Catalogne en Languedoc méditerranéen: questions sur les remplois en marbre blanc à travers les exemples roussillonais', Hortus Artium Medievalium [17] 2011, pp.77-84.

compensating agent for deficiencies in the primary material. The exposure of surface outcrops to weathering rendered them unusable, and suggests that considerable labour was expended in clearing the overburden from deeper horizons, although no evidence of organised workings remains visible. Use of massive varieties of schist during the First Romanesque period was restricted to the western margins of the Fenouillèdes and areas east of the Canigou massif, where individual blocks are frequently of large dimensions, some reaching a length of more than a metre.

The majority of the churches which survive on the 'chaos' landscape of the Millas batholith, which forms the eastern sector of the Fenouillèdes, witness a degree of sophistication in the surface treatment of building stone, and are thus generally dated to no earlier than the second half of the 12th century. The technical skill of local stone workers during this period is corroborated by the numerous sites where surface outcrops were exploited for the production of millstones, but the industry may have had its origins in the previous century. Signs that local masons were already adept at handling granite in the 11th century, albeit on a small scale, certainly exist at Sainte-Marie de Riquer, consecrated in 1073, and Sainte-Marie des Grades de Marcevol, both of which being discussed later in the current work.

Relying on signs of technical proficiency in stone-cutting for dating purposes must be treated with a degree of caution, as simple carved granite lintels are frequently associated with narrow window embrasures throughout the Romanesque period. These comprise elongated stone blocks with a smooth external face and a curved recess cut in their lower

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Michel Martzluff, 'Des pierres pour bâtir. Exploitation traditionnelle du substrat mineral depuis le Moyen Âge aux marges de la plaine de Roussillon (montagne de Rodès, Bouleternère et Ille-sur-Têt)', pp. 299-342 in Passarius *et al*, 2009.

surface to mimic the profile of an arch. Possibly the earliest example in Conflent appears in the modifications carried out at Saint-Michel de Cuxa in the 1030s, but the pattern continues in use throughout the 11th and 12th centuries. In later churches, the *moyen appareil* used in the background fabric, the sculpted ornament of the apse and the detailing of door and window openings confirms the presence of such carved lintels as an archaism, or as a deliberate reference to earlier practice. Further confirmation might also be available where polychrome effects were realised by alternating granites of different tones in window and door surrounds, this being a development generally considered to have occurred over the course of the 12th century.²¹²

A more easily-worked stone was available for detailing in the fabric of First Romanesque churches: alternatively described as tufa or travertine, 213 it was formed as a result of the precipitation of calcium carbonate from water seeping through the Villefranche marble, or deposited by the hot springs scattered around its periphery. Distinguished by its porous composition, tufa was sufficiently soft to be sawn and light enough to be easily transported; never abundant, the deposits were generally reserved for use in tracing the arched corbel tables typical of Lombard decoration, although it was also shaped to form voussoirs in several First Romanesque churches [30].

Lauzes, tufa and marble were the only materials not sourced from the immediate vicinity of the site during the 11th century, with the occasional presence of non-native stone in the fabric of local churches being attributable to glacial action during the last Ice Age.

Mallet, 2003: pp.62-64.

Tufa is the term applied to material formed in ambient water temperatures, travertine that applied to denser varieties produced by thermal action. It is not to be confused with tuff, a lightweight stone derived from consolidated volcanic ash which was used elsewhere in Catalonia for the construction of vaults; see Puig i Cadafalch, 1909-18, v2, p.470.

Lime and aggregate

The limitations imposed on masons by the native stone at their disposal were made more acute by the lack of calcareous sedimentary deposits in the local stratigraphy, which impacted on the production of lime mortar. Villefranche marble may have been exploited for this purpose during the First Romanesque period as it was in later centuries, ²¹⁴ but more suitable material existed in the Cretaceous limestone outcropping north of the Agly, ²¹⁵ and the calcretes formed in the lacustrine environment of the Roussillon plain during the Pliocene period. ²¹⁶ These alternative sources were accessible to local builders, as the aerated quick lime extracted from the kiln was easily transported by pack animals and, when mixed with aggregate and 'banked', could be stored on site during the winter months. ²¹⁷

The provenance of the aggregate used in local mortar production is also unclear, although sands and gravels were almost certainly dredged from the beds of the major watercourses. However, river sand is invariably contaminated with salts and clay minerals which contribute to its decay, and requires a higher proportion of lime to produce an effective mortar; given the absence of viable alternatives, its use must nevertheless be assumed to have been commonplace throughout the uplands. On the lower slopes of Canigou, a coarser grade of aggregate forms the matrix of the Miocene agglomerates: these naturally leached grits were free from the contaminants found in riparian sands, and would have produced a mortar with attractive characteristics for masons working in the vicinity, being relatively rapid

²¹⁴ Céline Jandot, 'Le four à chaux de *Les Pedreres* (Bouleternère)', pp.353-60 in Passarrius *et al*, 2009.

B. Aunay, P. Le Strat et al, *Introduction à la géologie du karst des Corbières*, Rap. BRGM/RP-51595-FR, www.infoterre.brgm.fr/rapports/RP-51595-FR; map p.17 (accessed 28.06.2020).

Caroline De Barrau, Aymat Catafau, Pierre Giresse & Michel Martzluff, 'Identification et localisation des roches et des carrières utilisées dans la construction en Roussillon', *Bilan scientifique 2015, Direction Régionale des Affaires Culturelles (Drac),* Montpelier (Ministère de la Culture et de la Communication, Direction Générale des Patrimoines) 2016, pp.220-23.

Vitruvius, *De architectura*, [Ed] G.F.Bignami, San Francisco (Nature Publishing Group) 2004, Bk. II, p.45ff.

in initial set. This was an important factor where building stone lacked porosity, and thus tended not to adhere to the bonding agent; it was even more critical in the raising of *petit appareil* composed of rounded blocks, where point-to-point rather than surface-to-surface contact prevailed. Both characteristics marked the primary material common to First Romanesque churches built south of the Têt, where deep mortar beds were a prominent feature of the fabric.

There is no way of knowing whether the composition of the mortar employed in Conflent was arrived at by a process of trial-and-error, or influenced by construction lore which survived the fall of the Roman Empire. The technical manual compiled by Vitruvius, for example, is known to have been in circulation during the Romanesque period, and specified the proportions of lime and types of aggregate required to produce various qualities of mortar. The bonding agent in general use was of the non-hydraulic type widely employed in antiquity, which required exposure to the atmosphere in order for curing to occur. There is no evidence of crushed ceramics being added to the mix as a means of converting non-hydraulic lime to the hydraulic variety: this may signal the absence of Roman brick or tile in Conflent, but a similar observation holds true for the Romanesque mortars of the Roussillon plain where such commodities were readily available.

Classifying the mortar used in specific medieval buildings has customarily been based on macroscopic evidence: on its visual appearance, or on representative samples screened to determine variables in the texture of the lime, the particulate size of the aggregate and

The validity of Vitruvius' observations are reflected in modern practice: see G. Lynch, 'The Myth of the Mix', Building Conservation Directory, Tisbury, Wilts. (Cathedral Communications Limited), www.buildingconservation, (accessed 13.07.19; no date or page numbers).

Jean-Pierre Adam, *La construction romaine*, Paris (Picard) 2005, p.69ff. For slow setting time of mortar, and its impact on other aspects of the construction process, see John Fitchen, *The Construction of Gothic Cathedrals*, Oxford (Clarendon Press) 1961, Appendix G, pp.262-65.

the proportions of the mix.²²⁰ This approach is adequate when establishing sequential phases of construction or identifying vagaries in the supply of raw materials, but tends not to take into account the idiosyncratic practice of the original masons, or subsequent interventions by human and environmental agencies. It must be assumed, for example, that the majority of buildings were repointed at intervals, or that localised enrichment of the substrate could occur with repeated applications of lime-wash or render.²²¹ It must equally have been the case that inferior mortar was reserved for use in the core of the wall, this including inefficiently burnt or slaked lime, ungraded aggregate and the tailings from surface work.

Although microscopic analysis has been added to the armoury available to contemporary archaeologists, the results to date have done little more than confirm the wide range of mortars employed by medieval masons. Of particular interest is the extremely durable, fine-grained variety which has been discovered at a number of sites but, despite its manifest advantage, was not apparently adopted for general use.²²² It does, however, surface at Saint-Michel de Cuxa, where it marks a late stage in the 11th century modifications inspired by abbot Oliba.

More typically, local mortars comprise a high proportion of coarse aggregate, which ranges from sharp sand to fine gravel and occasionally includes larger rock fragments. The texture appears to be consistent in buildings from the mid-10th to the end of the 12th century, but visual sampling is only possible at a restricted number of abandoned monuments [31,32].

For an example of site analysis, Renée Colardelle & Andréas Loebell, 'Église Saint-Jean-Baptiste, Viuz-Faverges (Haute-Savoie)', pp.46-49 in Christian Sapin [Ed], *Enduits et Mortiers. Archéologie médiévale et moderne*, Paris (CRNS) 1991.

For attested examples of external treatments, Marcel Aubert, 'Les enduits dans les constructions du Moyen Âge',

For evidence of a regional tendency to use such mortar, see Jerrilynn D. Dodds, 'The Carolingian Abbey Church of Psalmodi: Formal History and Historical Context', *Gesta* [25:1] 1986, pp.9-16; Bénédicte Palazzo-Bertholon, 'L'étude des mortiers de l'abbaye de Saint-Gilles-du-Gard', *BM* [171:4] 2013, pp.343-44. Also, for Burgundy: Stéphane Büttner, 'Matériaux et constructions. Sciences et techniques des matériaux, de la carrière à la mise en œuvre: bilan et perspectives', *Bulletin du centre d'études médiévales d'Auxerre (BUCEMA)*, [12] 2008 (accessed 03.03.18; no page numbers).

Elsewhere, the routine maintenance of functioning churches has obscured the original mortar, a fate also suffered by those major monuments which have undergone extensive conservation work.

Iron-mining, metallurgy and tools.

The successive orogenic episodes which affected the Pyrenean chain resulted in extensive mineralisation of the core strata, with both metallic and non-metallic ores being exploited down to the present day. Early activity was restricted to the mining of iron ore, the high manganese content of local veins being recognised by the Romans as ideal for the manufacture of edge tools and weapons. Smelting continued on a small scale under successor administrations, ²²³ with metallurgy becoming a speciality of the Benedictine houses north of the Pyrenees. ²²⁴ Catalonia was renowned for the production of superb long swords, which could be tempered and sharpened to a high standard thanks to the chemical composition of the iron: local smiths associated with the forging of weaponry were co-opted as witnesses to legal documents as early as 1015, and the status of such artisans continued to grow during the next century and beyond. ²²⁵ Although the monasteries on the slopes of Canigou holding concessions to work local seams were not involved in the trade in arms, the techniques involved in their manufacture would have been adapted for the making of the tools required by masons and sculptors.

M. Sancho i Planas, 'Production du fer au Moyen Âge: les forges au sud des Pyrénées catalanes', pp.73-86 in Pierre Pétrequin, Philippe Fluzin, Jacques Thiriot & Paul Benoît [Eds], *Arts du fer et productions artisanales, XXe Rencontres internationals d'archéologie et d'histoire d'Antibes, 21-23 octobre 1999*, Antibes (Éditions APDCA) 2000. Forges are noted as being active on the southern flanks of the Pyrenees during the 9th century. In Pallars and Ribagorça, Germanic settlers assumed the role in iron production previously filled by inhabitants of Gallo-Roman extraction. Also, Véronique Izard, 'La construction des paysages médiévaux. Le rôle fundamental de la sidérurgie dans les mutations socio-économiques et culturelles des VIIIe-XIVe siècles', pp.463-74 in M. Martzluff, 2005.

²²⁴ Véronique Izard & Gérard Mut, 'Moines et métallurgie dans la France médiévale', *Domitia* (8) 2007, pp.34-37.

Bonnassie, 1975: pp.474-75.

Saint-Michel de Cuxa played a leading role in exploiting the ferruginous seams in the valleys and foothills of the massif, and was possibly the only institution engaged in the primary treatment of the ore during the 10th century.²²⁶ On the foundation of the church of Saint-Germain at Codalet in 855, which later became the focal point of the abbey, the mining concession and local timber rights at Taurinya were amongst its possessions, and these were later augmented to include sites at Corts, Fillols, Escaro, Baillestavy and Valmanya.²²⁷ Metallurgical activity was later associated with Saint-Martin du Canigou, and the abbey of Serrabone in the adjoining Aspres region; all three institutions owned forges in neighbouring villages which operated independently of the mines themselves, and appear to have been granted on relatively short-term leases to individual smiths.²²⁸

Expertise in the treatment of iron is important when considering the quality of the tools available to local masons, which had to be adequate to the task of working highly resistant local stone. The most basic implements were picks and iron bars designed to lever material from river beds or detach blocks from surface outcrops of fissile strata. For granite, these may have been augmented by wooden wedges which could be driven into clefts in the rock and repeatedly drenched with water, the resulting expansion serving to widen the fissure, although the heating of iron pegs probably proved more effective. ²²⁹

Evidence for 10th century smelting exists in the scoria which underlies the churches of Baillestavy and Eus: see Gabriel Munteanu, Călin Tămaş, Béatrice Cauuet, Gérard Mut, 'Vestiges de l'exploitation du fer aux époques pré romaine et romaine dans le district minier de Baillestavy (Pyrénées-Orientales, France)', *Treballs d'Arqueologia* [21] 2017, pp.263-85.

One of these donations – at Fillols - was mentioned in a papal document of 1011 confirming the abbey's properties. The rights to extract iron ore were again linked to a gift of associated woodland, which suggests that certain forested areas were managed specifically to supply a local forge. Catherine Verra-Navarre, 'Esquisse d'une histoire des mines et de la metallurgie monastiques dans les Pyrénées (IX^e – première moitié du XVI^e siècle), pp.45-58 in *Moines et metallurgie dans la France medieval*, [Eds] Paul Benoît & Denis Cailleaux, *Colloque universitaire*, *Paris I Panthéon – Sorbonne*, 13-14 mars 1987, Paris (AEDEH) 1991, pp. 46-52.

Verra-Navarre, 1991: p.51. Saint-Michel de Cuxa had facilities for the primary treatment of the ore at Llech & Prats, and forges at Thuès, Fillols and possibly Taurinya.

For the lack of detailed evidence of masons' tools see Porter, 1917: p.15.

The site tools associated with early medieval builders are traditionally considered to have been more limited in range than those familiar to Roman craftsmen, the principal survivals in the archaeological record prior to the 12th century being the lump hammer (*marteau têtu*), heavy pick (*smille*) and a variety of punches and chisels.²³⁰ The building stone used in Conflent throughout the 10th and 11th centuries is invariably described as 'hammer-split', but the term can only be used generically for the heavily metamorphosed gneiss of the Pyrenean spine and the schists of the Fenouillèdes. In contrast, relatively clean fractures could be induced in the fine-grained granites of the region by the astute use of hammer and stone chisel, but during the 11th century the only signs of advanced surface treatments occurred in the preparation of arched lintels.

Evidence for the types of implements used in the medieval building trade has traditionally been drawn from illustrations included in illuminated manuscripts, a Catalan example being the mid-11th century Rodes Bible [33].²³¹ Here the essential equipment of plumb line, stone axe and trowel is shown in the hands of masons constructing a church with stone blocks which have evidently been prepared in advance. Unfortunately, the tools – punches and chisels – employed in detailed treatments such as carving and surface dressing seldom appear. Their use during the Romanesque period is equally difficult to confirm from the archaeological evidence, where there is little to distinguish the tool marks imparted by stone axes from those of broad-bladed chisels.²³²

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Jean-Claude Bessac, L'outillage traditionnel du tailleur de pierre, [Revue archélogique du Narbonnais. Supplément 14], Paris (CRNS) 1993, pp.14-59.

Paris, Bibliothèque Nationale de France, Latin 6 III; for further examples, Jean-Claude Bessac, 'Outils et techniques spécifiques du travail de la pierre dans l'iconographie médiévale', pp.169-84 in Odette Chapelot & Paul Benoît, *Pierre et Métal dans le batîment au Moyen Âge*, Paris (École des Hautes Études en Sciences Sociales) 1985.

Bessac, 1993: pp.121-37.

The quality of Pyrenean ore and the metallurgical skills of local smiths may have resulted in the region benefitting from advanced techniques in forging and tempering edge tools. In Europe more generally, improvements in this field are assigned to the later decades of the 11th century, and considered instrumental in the introduction of sculpted ornament in Second Romanesque buildings.²³³ In Roussillon the intricate carving of a marble lintel at Saint-Génis des Fontaines shows them to have been put to good use as early as ca.1020, more than a century before sculpture was reintroduced in the cloisters of the principal Benedictine monasteries.²³⁴

Dating improvements in the working of granite is more problematic, with dressed blocks of native stone increasingly being used to reinforce the angles of the building during the 12th century. More sophisticated treatments in the region were reserved for the last flourishing of the Romanesque, the carved cornice installed at Saint-Laurent d'Arsa, a hamlet to the west of Sournia in the Fenouillèdes, being a fine example of the sculptor's art [34]. In this case the intervention of an aristocratic sponsor can be deduced from the siting of the church in the shadow of a castle dominating the route to the Col d'Aussières, but elsewhere the inclusion of sculpted granite in the fabric of rural churches confirms the mastery of a number of indigenous craftsmen.

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Éliane Vergnolle, L'art roman en France, Paris (Flammarion) 1994, pp.34-35.

For an early attribution of this work to a local rather than an Andalousi craftsman, see Georges Gaillard, *Premiers essais de sculpture monumentale en Catalogne au Xe et XIe siècles*, Paris (Hartmann) 1938. Also, Meyer Shapiro, *Romanesque Art*, New York (George Braziller) 1977, p.295: despite the horseshoe arches of the arcading, the modelling of the figures is considered to betray strong Carolingian influences; cf. André Bonnery & Julie Perino, *L'art roman*, Vic-en-Bigorre (MSM) 2010, pp.140-41.

Forestry and timber reserves

Although metalworking was a small-scale enterprise, it had an impact on forest reserves which, by the 11th century, had been seriously depleted by human encroachment on the wooded uplands of the county.²³⁵ Attempts to manage resources are documented in 13th century land grants dealing with iron production, where certain woodland holdings were reserved to provide fuel for the smelting process, but the practice probably had its origins much earlier in the medieval period.²³⁶ The substantial roof frame installed at Saint-Michel de Cuxa confirms the existence of suitable standing timber in the late 10th century, but deteriorating reserves may have had a bearing on the introduction of vaulting in the grander First Romanesque churches. In the case of Saint-Martin du Canigou, for example, the decision to vault the abbey church may have been prompted by the deforestation of the slopes of the massif, which was well advanced by the turn of the first millennium.

A more compelling explanation focuses on the tendency of wooden roofing to catch fire by accident or design, this having been cited as a reason for its substitution by barrel vaulting in areas of Europe susceptible to enemy incursions.²³⁷ This was the case in frontier regions of Catalonia, where a timber superstructure was discarded, and weather-proofing in the form of thin stone slabs, slate or tile was applied directly to the upper surface of the vault.²³⁸ Conflent, however, remained immune to Moslem raiding parties during the 10th

²³⁵ Brutails, 1975: pp.14-15.

Véronique Izard, 'La fôret au Moyen Âge: enjeux, gestion et mutation d'un espace menacé', pp.255-88 in Aymat Catafau [Ed], Les ressources naturelles des Pyrénées du Moyen Âge à l'époque moderne. Actes du Congrès international RESOPYR.1, Font Romeu 2002, Perpignan (Presses universitaires de Perpignan) 2005. For examples at Taurinya and Fillols, see Verna-Navarre, 1991; cf. M. M. Postan, D. C. Coleman & P. Mathias [Eds], The Cambridge Economic History of Europe, v2, pp. 691-761; Vicens Vives, An Economic History of Spain, Princeton (Princeton University Press) 1969, p.145ff.

A. W. Clapham, English Romanesque Architecture after the Conquest, Oxford (Clarendon Press) 1934, pp.2-3. Clapham's later work endorses Puig's thesis on the First Romanesque, and singles out the frontier zone of Catalonia as a region where the use of stone vaulting was stimulated by the aggressive policies of the Caliphate: see Romanesque Architecture in Western Europe, Oxford (Clarendon Press) 1936, p.21ff.

²³⁸ Fernie, 2010.

century, circumstances which may have prolonged the use of wooden roofing throughout the First Romanesque period. An analysis of the relevent sites shows no obvious correlation between the monuments where stone vaulting was the preferred option and their potential exposure to Moslem attack. On the contrary, a number of rural churches built on the banks of the Têt or at easily accessible locations on the southern slopes of the Fenouillèdes were amongst the last to see their wooden roofing replaced by stone vaulting. As long as adequate forest reserves were available for use by local builders, the decision to raise a barrel vault over the nave remained an elective one, a point which assumes particular significance when discussing the First Romanesque churches of the county.

Topography, settlement and society.

The rugged relief of Conflent dictated both demography and land use within the medieval county, the banks of the Têt and its principal tributaries being favoured by early inhabitants, their homesteads and hamlets on broader sections of the valley floor separated by narrow defiles as the rivers rose to their source. The pinch-points were ideal locations for fortified sites: on the ascent of the Cady, for example, castles were established at Corneilla-de-Conflent, Vernet and Casteil, each dominating the productive agricultural land in their immediate vicinity, and hampering the movement of potential enemies. 240

East-west communications through the area were assured by the Roman road – the via Confluentana - linking Elne to Llivia on the Cerdagne plateau, but access to other

Martinez & Rossignol, 1975: settlement centres in certain lateral valleys are noted as being of equal importance as those founded on the banks of the Têt. An exhaustive review of early place names in Conflent is included in Ponsich, 1980.

Below, p.110: the few castles in Conflent dating from the Carolingian period were positioned to defend the borders of the county, or to safeguard its internal lines of communication. Fortified sites proliferated over the 11th and 12th centuries as subordinate barons sought to claim rights over more limited territories within the lateral valleys. See Jordi Bolòs, 'Poders locals, valls i pobles als pirineus catalans a l'edat midjana', www.academia.edu/6026767 (accessed 02.02.2021: no page numbers); also, Bolòs & Hurtado, 2009 & 2015.

territories neighbouring Conflent was hindered by the mountain ranges either side of the central valley, with transit over the Pyrenees being especially difficult. Westwards from Canigou itself the peaks of the range consistently exceed 2700m, the sole feasible means of passage to the upper reaches of the Tech being via the Col de Mantet.²⁴¹ The Fenouillèdes to the north form less of a physical barrier, with only isolated sections of the spine rising above 1000m in altitude, and all weather routes linked Conflent to districts controlled from Carcassonne: to the Corbières north of the Agly, and to the Pays de Sault, Razès and Donezan further west [35,36].²⁴²

By the 11th century cartage may have been a practical proposition in the lower reaches of tributary valleys, but access to more isolated regions was restricted to drover's trails, and portage only possible by means of pack animals. When it is recalled that the maximum weight loading for a (present-day) mule is ≈140kg,²⁴³ it immediately becomes apparent that there was no prospect of an upland village importing stone, and that even the procuring of lighter or less bulky materials - such as lime putty and roofing slates – was problematic. Petrological studies of the fabric of Romanesque churches within the country confirm that all were constructed of stone sourced within 1km of the site.²⁴⁴

An influx of refugees from the coastal plain during the 8th century resulted in extensive upland tracts being brought into cultivation and new settlements founded, with workable

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Apart from passage down the Rioja valley via Py, Sahorre and Fuilla, a western upland trail still used by drovers links Mantet to Nyer.

Ponsich, 1951: the status of Vallespir as a dependency of Cerdagne-Conflent underlines the importance of trans-Pyrenean routes. The region passed into the hands of Oliba Cabreta after his marriage to Ermengarde of the comital house of Roussillon, its previous overlords. See also Sagnes: pp.193-94. Ermengarde resumed possession of the territory on the death of her husband, but bequeathed it in 996 to her second son, Bernard Taillefer, who was already responsible for other peripheral areas of Cerdagne-Conflent.

John Landers, *The Field and the Forge: Population, Production and Power in the Pre-Industrial West*, Oxford (Oxford University Press) 2002, pp.80-81.

Laumonier & Laumonier, 2005: pp.483-96.

land increased by irrigation and the construction of terracing on south-facing slopes.²⁴⁵ By the 10th century the region was 'saturated', the population density having reached a peak that has never been equalled.²⁴⁶ Subsistence agriculture was the norm, the main cereal crops being rye and barley, but chestnuts were also an important staple. The climate encouraged the growing of fruit trees and vines, both of which figuring prominently in deeds of gift to local monastic houses. Ancillary activities included sheep-running and horse breeding on the higher slopes, which enabled local herdsmen to engage with the cash economy.²⁴⁷ The exploitation of marginal lands for this and other purposes, including hunting, fishing and the felling of timber, was specifically granted by the comital authorities, whose jurisdiction derived from its once being part of the Carolingian fisc.²⁴⁸ However, rights over watercourses were frequently retained to prevent their being indiscriminately tapped for irrigation purposes.

A significant departure from subsistence farming was the raising of cattle undertaken by two Benedictine foundations, Saint-Michel de Cuxa and Saint-Martin du Canigou, on the Cerdagne plateau and the south facing slopes of the upper Têt valley. A group of isolated hamlets in the hills behind Olette and Canaveilles, all long-standing dependencies of the monasteries, owes its origins to this speciality, and the exchange of arable land at Fuilla for coarse grazing in the region of Celra can be interpreted as an early attempt by the Saint-Martin du Canigou to consolidate the territory devoted to livestock.²⁴⁹

²⁴⁵ J-A Brutails, Étude sur la condition des populations rurales du Roussillon au Moyen Âge, Geneva (Slatkine) 1975, pp.5-31.

²⁴⁶ Bonnassie, 1990: pp.32-34.

²⁴⁷ *Ibid.* p.25

²⁴⁸ *Ibid.* p.105ff; also Bonnassie, 1990: pp.35-37.

CC: entries 82, p.136; 91, p.141. The other party to the transaction was count Miro I. For the significance of livestock and pasturage as a source of revenue for monastic houses, see Jordi Bolòs, 'El monestir com institució feudal', pp.68-89 in Jordi Bolòs [Ed], *Temps de monestirs. Els monestirs catalans entorn l'any mil*, Barcelona (Pòrtic – Generalitat de Catalunya) 1999.

A preponderance of small, family-owned plots underpinned the social structure of the county in the centuries immediately following Frankish control of the region, ²⁵⁰ although these seldom formed a coherent parcel. Arable holdings were typically fragmented, and ranged in size from narrow strips – the *pecia* or even smaller *peciola* – to confined fields (*clos*) or meadows (*campus*). In addition, each household cultivated a garden (*hortus*), or a share in one held collectively, ²⁵¹ and probably a small vineyard (*vinea*). The seasonal nature of agricultural activity and the density of population combined to supply labour for activities essential to the building trades which could be undertaken in the winter months. Apart from forestry and mining, these would have included lime-burning and the sourcing and transport of stone, and all would have provided a stepping-stone for individuals to become integrated into the craft fraternity.

No satisfactory conclusion has been reached in the debate on the status of this section of the population: an enduring view that they were a free, landowning class has been repeatedly challenged in recent years, although it may have approximated to the truth at certain periods. Precedents for systems of tenure are frequently sought in the *aprisio* grant, introduced by Carolingian rulers but echoing Visigothic precedent, which enabled early pioneers to convert a farmstead or smallholding into alienable property after a fixed period of occupation, usually thirty years. This or a similar mechanism was apparently responsible for a high proportion of the peasant holdings documented in the early 11th century, but other, more restrictive tenancies also existed: *precaria*, where the property was

Paul Freedman, *The Origins of Peasant Servitude in Medieval Catalonia*, Cambridge (Cambridge University Press) 1991, pp.1-2; the rural population of the 10th century is described as 'a pioneer society of free agricultural settlers'. To judge by the transfer of small units of production to monasteries during the 10th century, the land appears to have been distributed in a patchwork of holdings; cf. Appendix C.

²⁵¹ Brutails, 1975: p.20.

²⁵² Bonnassie, 1991: pp.243-60; Freedman,1991: pp.61-63.

²⁵³ Freedman,1991: pp.59-60.

held conditionally from an overlord; and plots held on a share-cropping basis (*medium plantum*).²⁵⁴ A degree of social stratification within this class is evident from the terminology of early charters, where individual donors are singled out from the *plebs* or *populus* who were also involved in the building of community churches.²⁵⁵ In the consecration document of Sainte-Eulalie de Fuilla d'Aval, for example, ten sponsors of the church were named, the nature of their gifts indicating that they were leading villagers rather than members of the local aristocracy.²⁵⁶ The larger group of minor benefactors presumably represented those fortunate enough to hold sufficient land for the support of a family, and the resources to make a modest contribution to the project. What the document does not mention is the sub-class – including slaves - which experienced a more marginal existence, and whose involvement in the project, if any, was limited to voluntary or directed labour.²⁵⁷

The upper echelons of society preserved the structure developed under the Carolingian regime, the count disposing of a network of subordinates – viscounts and vicars – to share his administrative responsibilities in the fields of military organisation, revenue collection and the dispensing of justice. An important subcategory comprised the Levites, whose lineages paralleled those of the counts, and who were not only avid promoters of monasteries, but prominent judges, castellans and landholders.²⁵⁸ These individuals appear at the dedication ceremonies of churches without necessarily presenting as major

Lewis, 1965: pp.69-80.

²⁵⁵ Bonnassie, 1991: p.244.

Appendix N. For the rise of a 'village aristocracy', see Pierre Bonnassie, 'Les sagreres catalanes. La concentration de l'habitat dans le <cercle de paix> des églises (XIe siècle)', pp.68-79 in M. Fixot & E. Zadora-Rio [Eds.], L'environnement des églises et la topographie religieuse des campagnes médiévales. Actes du congrès international d'archéologie médiévale, Aixen-Provence, 28-30 septembre 1989. Paris (Éditions de la Maison des Sciences de l'homme) 1994. The integration of the church into the parish system was contingent of the traditional prerogatives of the villagers being respected: see Aymat Catafau, 'Petites, nombreuses, isolées? Les églises des vallées pyrénéennes', Domitia [12] 2011, pp.74-85.

Numerous 9th and 10th century examples survive for the diocese of Urgell where the church was built by the voluntary labour of the community; see Bonnassie,1991: pp.243-5.

Josep Bastardas, 'Els levites: el poder fàctic del territori comtal català', *Querol: Revista Cultural de Catalunya* [26] 2020, pp.16-27.

benefactors, but increasingly came to annex community churches, and treat their tithes as personal income. Prior to the mid-11th centuries, however, a strong central authority prevented the worst excesses: the posts were assigned for the lifetime of the holder on the basis of an oath of fidelity rather than homage, and their tenure rescinded in the case of proven misconduct. Similar conditions governed the relationship between the count and other notable landholders – *boni homines* - who were called upon to assist in judicial proceedings, and who appear as counter-signatories of documents issued by the comital house.

The independence implicit in what was effectively an allodial system of landholding did not exempt the occupants from taxation, or protect them from the exactions of the seigneurial class. In the interior of Old Catalonia, however, charges on peasants tended to be less onerous than elsewhere: all were liable to military service and the *census* levied on a proportion of their output and paid in kind, but scant mention is made in the documentary record to forced labour or ancillary charges.²⁵⁹ The combination of a strong central authority, dispersed land tenure and a complex network of subordinate overlords – many of them monastic – also acted as a check on attempts to appropriate peasant holdings.²⁶⁰ Compact units of power and production were especially difficult to assemble in the uplands, although the efforts of Saint-Michel de Cuxa obtained a degree of success in Conflent. Moreover, the principles of Visigothic customary law remained embedded in society until the mid-11th century, and were frequently cited in judicial proceedings dealing with land ownership, especially in matters concerning sales, donations, dowries and inheritance.²⁶¹ The

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Freedman, 2005: pp.64-65.

For the distribution and spheres of influence of monastic and lay landholders in Conflent, see Jordi Bolòs & Victor Hurtado, *Atles dels comtats de Rosselló, Conflent, Vallespire i Fenollet (759-991)*, Barcelona (Rafael Dalmau) 2009, p.58ff. Lewis, 1965: pp.214-19.

appearance of peasants at courts held by the count or his subordinates, and their frequent gain of cause, demonstrate that they were not powerless in protecting their rights.

These factors have been seen as delaying the introduction of 'feudalism' in Catalonia, or at least that version of the phenomenon traditionally associated with the appearance of the *seigneurie banale*: an exercise of arbitrary authority, seizure of the means of production and ultimate claim to ownership of the human resources contained within its frontiers. This view runs counter to the abrupt societal change - the *mutation de l'an mil* - envisaged by late 20th century theorists, ²⁶² and considers the widespread breakdown in public order which occurred in Catalonia in ca.1020 as part of a more gradual process in the redistribution of power. ²⁶³ Coercion and dispossession, violence and the vendetta were endemic in Carolingian society, and did not disappear in the successor states of the Spanish March: on the contrary, they tended to be accentuated by the rapid increase in the number of castles built to counter Muslim raids, and the imposition of an additional charge on the peasantry - *mandamenta* – for the maintenance of the garrison. ²⁶⁴

The proliferation of castellanies had the potential to alter the settlement pattern either by forming the focal point of new settlements, or affecting the spatial arrangement of those which already existed. The castle as the dominant feature of the village is a rare occurrence in Conflent, and represents a development which post-dated the appearance of

For the origins of this theory, Georges Duby, 'Recherches sur l'évolution des institutions judiciaires pendant le Xe et le XIe siècle dans le sud de la Bourgogne', *Le Moyen Âge* [52:1] 1946, pp.149-94; a more general interpretation is included in *Les trois ordres*, Paris (Gallimard) 1978, pp.147-66; J-F Lemarignier, *La France médiévale*. *Institutions et société*, Paris (Armand Colin) 2000, pp.109-160. For its relevance to Catalonia, Bonnassie, 1991: pp.154-62.

For details of the controversy over the validity of 'mutation' and 'continuity' theories, see Thomas N. Bisson, 'The "Feudal Revolution", *Past and Present* [142] 1994, pp.6-42; Dominique Barthélemy & Stephen D. White, 'The "Feudal Revolution", *Past and Present* [152] 1996, pp.196-223. Cf. Dominique Barthélemy, *La mutation de l'an mil: a-t-elle eu lieu? Servage et chevallerie dans la France des Xe et Xle siècles*, Paris (Fayard) 1997; Adam J. Kosto, *Making Agreements in Medieval Catalonia. Power, order and the written word, 1000-1200*, Cambridge (Cambridge University Press) 2001, pp.9-15; 64-77.

Throughout the 10th century the village communities themselves were also active participants in raising and manning local defences: Bonnassie, 1991: p.248.

First Romanesque architecture. Notable examples of the *village perché* in Conflent, such as Eus and Vernet-les-Bains, are 'two-centred' settlements, where the fortifications built on the crown of the hill came to be surrounded by dwellings whilst the parish church remained in the original centre of habitation [37]. At other locations, the church itself occupied the strategic site and acted as the haven of last resort in troubled times: Saint-Paul de Py and Saint-André d'Evol, for example, lie up-slope from the dwellings which congregated in their shadow, and pre-date the castles which were eventually built nearby to protect (and dominate) the villages.

The alternative configuration of streets arranged concentrically around a central religious complex also exists, most notably at Vinça, Marquixanes, Prades and Cattlar. Defensive considerations again lay at the heart of the settlement pattern, the church being surrounded by a walled enclosure, usually of thirty paces in radius, delineating an area of consecrated ground – the *cellera* [Cat. *sagrera*] – where the villagers could safely store goods and chattels [38,39,40].²⁶⁵ The inviolable status of the area derived from its initial purpose as a burial ground, but was only formally recognised as sacred space by councils held to promote the principles of the Peace of God and Truce of God movements during the 1020s and 1030s.²⁶⁶ The rudimentary structures built against the enclosure wall were converted over time into dwellings, and subsequently mirrored by further rings of housing, in each case the outward-facing walls having a defensive function.

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Aymat Catafau, *Les celleres et la naissance du village en Roussillon*, Perpignan (Presses universitaires de Perpignan) 2014: origins pp.19-59. Also, 'Paroisse et cellera dans le diocèse d'Elne X^e – XII^e siècle', *SMC* [30] 1999, pp.91-100.

Catafau, 2014, pp.64-65: the gift of land for a cemetery is recorded in the consecration charters of Sainte-Eulalie de Fuilla and Saint-Vincent d'Eus. At Fuilla the radius of thirty paces was stipulated, and the area later referred to as a *cellera*, but no such details were given at Eus. See Appendices Q, T.

During the 12th and 13th centuries, there was a growing tendency for the population in areas of previously dispersed settlement to congregate in small hamlets, the process being witnessed by the number of Second Romanesque churches scattered across the uplands of Conflent [41]. There was also a growing polarisation between villages centred on a *cellera* and those dominated by a baronial castle, with more structured defensive works – ditches, walls, towers and gates – being raised to protect the settlement. These were incorporated in the outer ring of dwellings, and enclosed the narrow streets which mark successive stages in the expansion of the population.

There were circumstances where heightened tensions did not materially affect the settlement pattern, or lead to the immediate re-siting of the parish church. In the lower Rioja valley, for example, the village of Fuilla retains the three divisions — 'd'amunt', 'del mig' and 'd'avall' — originally established as ribbon development along the trackway to the Col de Mantet. In this case the strongholds established at Sahorre and alongside Sainte-Eulalie de Fuilla d'Aval provided sufficient security to allow the hamlets to dispense with local defences. At other locations, such as Baillestavy and Rigarda, the original church remained in use for a considerable period after the relocation of the village to a less exposed position, and at Prats-Balaguer was never replaced [42].

The internal landscape of Conflent is frequently described as 'compartmentalised': although not totally isolated one from another, communications were sufficiently problematic to encourage each community to build its own church or chapel.²⁶⁷ Prior to the 10th century these are assumed to have been rudimentary structures of wood or packed earth

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²⁶⁷ Catafau, 2011; Flocel Sabaté, 'La montagne dans la Catalogne médiévale. Perception et pouvoir', *Actes des congrès de la Société des historiens médiévistes de l'enseignement supérieur public* [34] Chambéry, 2003, pp.179-218.

(*pisé*) which required frequent replacement, an identical site (and possibly footprint) being used for successive buildings.²⁶⁸ No trace of these remain, or of the domestic buildings presumably constructed in the same materials of population centres which qualified as *villae* during Roman control of the region, and which appear from documentary sources to have remained in continuous use throughout the medieval period.²⁶⁹ Equally, there is no archaeological evidence that Carolingian control of the March stimulated the immediate reintroduction of mortared masonry, which first surfaces in the fortifications built by Catalan counts to strengthen the internal defences of their territories. It is only from this point in the historical narrative that indigenous craftsmen began to re-master the art of building in stone, and that an infrastructure emerged to support their endeavours.

The medieval religious estate of the county

The early medieval settlements of the Pyrenean interior either expanded to become significant population centres during the 10th and 11th centuries, or atrophied as their inhabitants dispersed to colonise more fertile lowland regions. A number of Pre-Romanesque churches mark the sites of abandoned or shrunken villages in the uplands, but only vestiges of those built in Conflent survive in the fabric of later monuments. The one exception is the abbey church of Saint-Michel de Cuxa, constructed in the mid-10th century by the most influential Benedictine community of the county, and a site of prime importance in tracing the revival of conventional building methods in the region.

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Dethier, 1986: pp.35-36. Unlike other medieval earth-based building materials (*adobe, bauge* or *torchis*) *pisé* or *tapià* was moulded from sandy soils with a low clay content. Cf. Rémy, *et al.* 2009: pp.53-95; in the 10th century it was widely used in Muslim controlled regions for the construction of fortifications; in Roussillon it was associated with vernacular architecture until the early 20th century:

Martinez & Rossignol, 1975.

In contrast, more than eighty examples of Romanesque religious architecture lie within the county, but their temporal distribution is uneven, approximately half being representative of the Second Romanesque style.²⁷⁰ Of the forty-two village churches or chapels in Conflent attributed to the 11th century, only thirty retain sufficient original fabric to warrant inclusion in the present study. The inclusion in half of these of a range of features – ground plan, vaulting, decoration – is crucial in attempting to establish an internal chronology of the style; the others, poorly preserved or extensively modified, nevertheless contribute supporting evidence of particular aspects of contemporary practice. Moreover, these examples are dispersed across the three main geological landscapes of the region, thus enabling the constraints imposed on masons by the qualities of the native stone to be evaluated, and their concommitant effect on the appearance and architectural detailing of the monuments to be assessed.

Despite the limited number of preserved sites, the data base is sufficiently large to span both churches with known monastic links and those sponsored by lay patrons, the village community, or a combination of the two. Circumstances thus enable the agencies involved in the spread of the First Romanesque architectural practice to be examined, and adjudge whether these differed in the case of 'system', where innovatory building methods were employed, and 'style', where the elements adopted demanded no new skill on the part of the mason.

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The latter category includes churches where small sections of First Romanesque or earlier masonry were retained in a building extensively remodelled in the 12th century.

Chapter 4

The influence of Carolingian interventions on architectural developments in Catalonia.

The location, sophistication and status of First Romanesque religious monuments in the Marcher counties ultimately depended on socio-political developments which occurred in the centuries between the expulsion of Muslim forces and the turn of the first millennium. The re-establishment of the religious infrastructure of the province was a slow process, and one governed by issues of security. Benedictine monasticism and the comital houses acting in concert were at the forefront of the movement, but their efforts were eventually mirrored by the those of the wider population as the threat of invasion receded. The inclusion of village communities in the patronage network can be traced to this period, with the churches built under their auspices becoming as prominent in the landscape as those dependent on monastic foundations. Of necessity such projects relied on indigenous labour, and resulted in the gradual acquisition of skills which later informed local interpretations of the new architecture introduced to the region in the early 11th century.

As the sponsorship of First Romanesque churches and the technical competence of the masons engaged in their construction are key aspects of the argument advanced here, it is essential to identify the evolutionary progress of these mechanisms over the 9th and 10th centuries before gauging their later impact on the building trades.

Monasticism in the 8th and 9th centuries

In architectural terms, the Frankish annexation of Roussillon in the latter half of the 8th century occurred against a blank canvas, with no evidence of stone-built churches having survived the Muslim invasion. Such craft skills and infrastructure as existed during the

Visigothic administration of the region atrophied through lack of use, and required the creation of new command structures before they could be revived. The order in which these agencies were established, their interrelationships and role in promoting religious architecture north of the Pyrenees inevitably impacted on the building trades, eventually leading to their becoming a definable sector of the local economy, and instigating traditions which would have a bearing on later events.

Understandably, the reinstatement of the religious infrastructure of areas devastated by warfare was not the first priority of the Carolingian regime, its aim in this field being limited to encouraging a revival of monasticism as a preliminary to a more general repopulation of abandoned lands. At the forefront of the movement were small groups of religious from south of the Pyrenees seeking refuge following the abortive revolt of Sulaïman-ibn-al-Arabi, and these are known to have constructed their own places of worship.²⁷¹ The first tentative moves in Roussillon involved small foundations sited along the River Tech, the earliest documented case from the 770s being Sainte-Marie d'Arles-sur-Tech.²⁷² Its instigator, Castallanus, reputedly adapted existing civic buildings to house the community: these were thought to have been associated with the derelict Roman baths at Amélie-les-Bains, but archaeological evidence has shown that a contemporary urban settlement also existed at Arles itself.²⁷³ Nearer the coast, Saint-Génis des Fontaines - first mentioned in 819 - and Saint-André de Sorède were established lower down the Tech on the northern slopes of the Albères,²⁷⁴ but nothing is known of the original buildings constructed at these sites.

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Above, pp.59-60; Sagnes 1982: pp.237-40.

Pierre Ponsich, 'Le Roussillon: le cadre géographique. Aperçu historique. Saint-Michel de Cuxa du IXe au XIIe siècle', SMC [1] 1970, pp.19-26.

²⁷³ Mallet, 2003: pp.288-89.

Ponsich, 1970: a foundation date of ca.800 is suggested for both sites.

It is significant that the protagonists in the drive to revive monastic and economic activity in the region were of Visigothic heritage, and confirmed in their opposition to Islam. The founders of the communities along the Tech valley and later at Exalada in Conflent were all *hispani*, and each monastery acted as a hub for a network of dependant *cellae* tasked with bringing parcels of waste land back into agricultural use.²⁷⁵ Their presence was crucial in bolstering frontier defences by encouraging resettlement, and mirrored a policy applied in the secular field where individual or groups of *hispani* were granted lands from the royal fisc – *aprisiones* – which effectively placed the holders outside the jurisdiction of the local counts.²⁷⁶ An early *apprisionnaire* is noted as founding Saint-Pierre de Céret in 814, and others may have been linked to religious buildings elsewhere in the region.²⁷⁷

An imperial concession of the lands settled by the monasteries was acquired retrospectively, in the form of grants and immunities issued by Louis the Pious and his successors.²⁷⁸ Working in conjunction with Benedict of Aniane, who was also of Gothic descent,²⁷⁹ Louis had carried out extensive reforms to the religious foundations in Aquitaine, which he ruled before his accession as Emperor.²⁸⁰ An identical strategy was adopted in

The Visigothic origins of early monastic founders is emphasized by Mathias Delcor: 'Problèmes poses par l'église de Saint-Michel de Cuixa consacrée en 974 et par les églises successives qui l'ont précédée', *SMC* (6) 1975, pp.129-51.

Claudie Duhamel-Amado & Aymat Catafau, 'Fidèles et aprisionnaires en réseaux dans la Gothie des IXe et Xe siècles', pp.437-65 in *La royauté et les élites dans l'Europe carolingienne (du début du IXe aux environs de 920)*, [Ed] Régine Le Jan, Lille (Centre d'histoire de l'Europe du Nord-Ouest: Université Charles-de-Gaulle/Lille 3) 1988; the area of land granted could be substantial, and its recipient the founder of an aristocratic dynasty. Also, Bonnassie, 1976: pp.39-40; Cullen J. Chandler, 'Between court and counts: Carolingian Catalonia and the *aprisio* grant, 778-897', *Early Medieval Europe* II (I) 2002; pp.19-44. Cf. Jordi Bolòs, *Temps de monestirs. Els monestirs catalans entorn l'any mil*, Barcelona (Pòrtic/Generalitat de Catalunya) 1999, pp.68-89. The prerogatives granted by Frankish monarchs to monastic houses included judicial powers over the inhabitants of their domains, thus elevating the abbot to the status of the Carolingian *vicar*. Comital support for the principal institutions during the 10th century initiated a process which saw these responsibilities gradually transferred to the civil authority.

For potential sites on the Roussillon plain see Martinez & Rossignol, 1975.

⁸²¹ for Arles-sur-Tech and dependent *cellae*: *Marca* col.76; 823 for Saint-André de Sorède, Mallet, [2003] p.253.

Benedict's Gothic origins are reflected in his given name of Witiza, and that of his father Aigulf, count of Maguelonne: see de Vic & Vaisette, 1993: v2, pt.1, pp.122-25.

R d'Abadal i de Vinyals, 'La Catalogne sous l'empire de Louis le Pieux', *ER* [IV] 1954-55, [V] 1956, pp.18-24; Louis Halphen, *Charlemagne et l'Empire carolingien*, Paris (Albin Michel) 1995, p.199ff; de Vic & Vaisette [1993] v2 pt1, pp.162-63, pt2 (proofs) charter of Charlemagne, p.601.

Catalonia to impose orthodox Benedictine rule on communities which had evolved in idiosyncratic fashion, the imported model being more redolent of eremitic practice than that sanctioned by Rome.²⁸¹ The importance of liturgical reform must also be seen in the light of the threat posed by the Adoptionist heresy then embedded at both Toledo and Urgell, and the possibility that adherents of the sect were amongst the *hispani* who promoted monastic revival north of the Pyrenees.²⁸²

In architectural terms, Benedict's campaign to impose a degree of conformity on collegiate life and privilege the primary function of prayer had repercussions on the design of the monastic church. Across Languedoc this resulted in the construction of a series of unicellular abbey churches with projecting transept arms and a triapsidal eastern end, features which entered Carolingian tradition through contact with Italy and Byzantium. Examples include Aniane itself (*Hérault*), Psalmodi (*Gard*) and possibly Lagrasse (*Aude*), and the footprints of both Saint-André de Sorède and Saint-Génis des Fontaines confirm the later introduction of the model into Roussillon (**43,44,45**).

After the death of Louis in 840, successive Frankish counts of Septimania were implicated in the intrigues surrounding the accession of Charles the Bald, prompting a breakdown in local administration.²⁸⁵ Order was not restored until the late 860s, when charters confirming monastic privileges again began to be issued from the royal court.²⁸⁶ The precarious situation in Conflent is illustrated by events at Exalada, a community founded in

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²⁸¹ Pladevall & Català Roca, 1968: pp. 23-28.

²⁸² *CC* [VI] pp.123-81.

²⁸³ Fernie, 2014: p.18; Conant, 1979: p.62.

André Bonnery, 1989: Saint-André de Sorède and Saint-Génis des Fontaines were extensively damaged by a Viking raid along the Tech valley in ca.858, but are believed to have been rebuilt to the same ground plan later in the century; Mallet, 2003: p.258. For 10th century reconstruction of Saint-Génis, *Marca*, col.925, dated 981.

²⁸⁵ Ponsich, 1951.

Marca col.789 (Banyoles), 792 (Sorède), 793 (Arles sur Tech), 795 (Besalù).

ca.845: conditions attached to a deed of gift by a group of incomers a decade later reveal uncertainties over the viability of the community, presumably as a result of disputed title to its possessions.²⁸⁷ The retention of property at Cuxa by their leader, Protasius, the stipulation that they could reclaim their donations if driven from the site, and the underlying presumption of goods held in common, all suggest that they had previously lived communally, and were attempting to revive a moribund foundation.²⁸⁸ This thesis is supported by the presence at Cuxa of a private church dedicated to Saint-Germain d'Auxerre before ca.866:²⁸⁹ this was sited on an allod owned by Protasius, and formed the nucleus of a new monastery after Exalada was destroyed in 878.²⁹⁰

Saint-Germain is one of a number of small churches or monastic *cellæ* known to have existed in Roussillon during the 9th century, early concentrations being found in the Albères,²⁹¹ and possibly on the Cerdagne plateau.²⁹² Others were sited on important axes of communication,²⁹³ three noted examples being Saint-Martin de Fenollar, located south of Le Boulou alongside the Roman road across the Albères;²⁹⁴ Saint-Clément de Reglella, on the north bank of the river at Ille-sur-Têt (both first mentioned in 844);²⁹⁵ and Sainte-Marie de Formiguères, in Capcir.²⁹⁶ The phenomenon may also be associated with less established

For the early history of the monastery and relevant documentation see Ramon d'Abadal i de Vinyals, *Com neix i com creix un gran monestir pirinenc: Eixalada-Cuixà*, Barcelona (Abadia de Montserrat) 1954; also Ponsich, *ER* [1-2] 1952, pp.7-19. The incomers were from Urgell, where moves to suppress Adoptionism included the resiting of the cathedral and a rapid expansion of the adjoining settlement, which became a centre for orthodox adherents of the Faith; see Javi Parra, 'Les relacions entre la poder laic i eclesiàstic durant el bisbat de Sant Ermengol d'Urgell', www.academia.edu/20076414 (accessed 20.01.2021: no page numbers).

²⁸⁸ Appendix A, I.21-23; 38-40.

²⁸⁹ Ponsich, 1980.

²⁹⁰ Ponsich, CR [7] pp.357-61.

Ponsich, 1980; pp.24, 54: 'cella Sancti Felicis' and 'cellula Sancti Juliani', Laroque-des-Albères, 834; 'Sancti Martini in Monte Furcato', south-east of the peak of L'Albère, ca. 844.

Ibid. pp. 140-63. 62 references to 'parrochia' date to 839, but do not mention a church.

The siting may have been determined by the comital administration, and used as a means of monitoring internal movements; Bolòs & Hurtado, 2009, p.114.

²⁹⁴ Ponsich, 1980; p.79.

²⁹⁵ *Ibid.* p.42.

²⁹⁶ Mallet, 2003; pp.235-36.

routes used by drovers or travellers between the valleys.²⁹⁷ Saint-Pierre de Riuferrer (820), a dependent *cella* of Sainte-Marie d'Arles-sur-Tech, lies on the Roman road to the iron workings of Batère, which continued as a trackway across the Pyrenees to Valmanya. In the Fenouillèdes, two 10th century dependencies of Saint-Michel de Cuxa either side of Sournia lie on the banks of the Desix, which links Ille-sur-Tet with the headwaters of the Aude via the Col d'Aussières.²⁹⁸ To the east of the Canigou Massif, Saint-Nazaire de Barbadell borders the main access from the Têt valley to the uplands of the Aspres, and thence to the heartland of Vallespir.

Known 9th century foundations in Conflent are rare, amongst those documented being Saint-Félix de Codalet (865),²⁹⁹ Saint-Estève de Pomers (865),³⁰⁰ Saint-Vincent de Camplong (874),³⁰¹ Saint-Martin de Clara (878)³⁰² and Saint-Estève d'Estoher (879):³⁰³ apart from Saint-Estève de Pomers, these were completely replaced by First Romanesque or later churches. Vestiges of earlier fabric were occasionally retained in buildings of the 10th century, and support the hypothesis that specific sites were subject to repeated redevelopment, many of these eventually fulfilled a parish function, but may have originated as monastic, private or community churches which did not enjoy such status.³⁰⁴

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Jordina Sales Carbonell & Natalia Salazar Ortiz, 'The pre-Pyrenees of Lleida in Late Antiquity: christianisation processes of a landscape in the *Tarraconensis*', *Revista d'Arqueologia de Ponent* (Universitat de Lleida) [23] 2013, pp.27-44.

The importance of the route is emphasized by the fortified sites at Sequeres and Arsa, and their associated 12th century churches.

²⁹⁹ Ponsich, 1980; p.101.

³⁰⁰ *Ibid.* p.100.

³⁰¹ *Ibid.* p.127.

³⁰² *Ihid* n 100

lbid. p.104. A church in the Llech valley south-west of Estoher is documented from ca.848.

³⁰⁴ Catafau, 2011.

The diocese of Elne and the parish network.

The promotion of religious observance amongst the population as a whole is less clearly documented. The bishopric of Elne was revived in 783 following the fall of Narbonne and the Carolingian advance to the Albères, 305 but this appears to have been little more than a symbolic gesture: formal recognition of the privileges, immunities and property held by the See does not appear in extant sources until the 820s, and the brevity and general terms in which the relevant charters are couched amount to an admission that by this date little of value remained to be protected. No archaeological evidence has emerged of the episcopal complex known to existed during the Visigothic period; equally, there is no reference in the documentary record to an earlier church still being functional, or of a replacement in the process of being constructed. 308

In conformity with Carolingian practice, the bishop fulfilled a number of secular functions in maintaining public order, overseeing judicial proceedings and regulating trade. Charters of Louis the Pious issued between 833 and 840 confirmed the privileges and immunities of the See, and granted it a proportion of the revenues levied on markets which were formerly remitted to the Imperial fisc.³⁰⁹ Its resources were augmented later in the century to include profits from toll-roads, levies on salt production and rights over

Eduard Junyent, *L'arquitectura religiosa a Catalunya abans del romànic*, Montserrat (Publicacions de l'Abadia de Montserrat) 1983, p.55.

Marca, cols.770, 773: the term used is *quas moderno tempore possidet*, with conditions under the occupation being ignored. Cf. Junyent, 1983: p.54; also *Marca*, col. 761: this entry, dated 819, reproduces the consecration document for the rebuilt cathedral of La Seu d'Urgell which was destroyed during a Moorish raid in 793, and lists 287 localities controlled by the diocese. Some have named churches, but whether all these are survivals from the previous century is unclear.

Riu & Valdepeñas, 1995: a similar lack of information affects the other bishoprics of Catalonia re-established by Louis the Pious or his successors.

Junyent, 1983: p.56. A new church was not consecrated until 916; *Marca*, col.839.

Marca, col.769, 770, 773. *CC.* [2:1], p.102.

shipwrecks.³¹⁰ These precedents were acknowledged and built upon during the 10th century, when the ecclesiastical authorities assumed a considerable role in local administration.³¹¹

A charter of 836 lists the properties owned by the diocese and records several dependent *cellae*, but no record survives of defined parishes under its control.³¹² This contrasts with the situation in more central areas of the Pyrenees, where resistance to Moorish control appears to have been less robust, and the aftermath of the invasion less destructive.³¹³ An embryonic parish system survived in the diocese of Urgell, with acts of consecration known from as early as 833,³¹⁴ the building of churches being mediated by a prominent individual (*vir inluster*), a priest, or the populace as a whole (*populous cohabitans* or *homines commanentes*).³¹⁵ The earliest mention of a defined parish in the diocese of Elne dates to 959, and relates to the *villa* of Bruilla on the Roussillon plain and its church of Sainte-Marie.³¹⁶ The dedication of Saint-Pierre de Riuferrer (*Vallespir*) later in the century cites the boundaries of adjacent parishes when defining its territory, which suggests that in certain regions the network was in an advanced stage of development by this date.³¹⁷

Throughout the period the role of the incumbent bishop appears to have been limited to encouraging the construction of parish churches, rather than initiating or financing specific

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³¹⁰ *CC.* [2:1], pp.108-110.

Paul Freedman, 'Le pouvoir episcopal en Catalogne au Xe siècle', pp.175-86 in Xavier Barral i Altet *et al.* [Eds], *La Catalogne et la France méridionale autour de l'an mil*, Barcelona (Generalitat de Catalunya) 1991.

Marca, col. 773. Ponsich, 1999, for possible examples of parish churches in the later 9th century. A charter of 880 relating to Sant Joan de les Abadesses mentions three churches serving the villages over which it laid claim: Jonathan Jarrett, 'Power over past and future: Abbess Emma and the nunnery of Sant Joan de les Abadesses', Early Medieval Europe [12:3] 2003. pp.239-58.

³¹³ Pladevall & Roca, 1968: pp.46-47.

Cebrià Baraut, Les actes de consagracions d'esglésies de l'antic bisbat d'Urgell, La Seu d'Urgell (Societat Cultural Urgel litana) [1] 1986

Pierre Bonnassie, 'Le clergé paroissial aux IXe-Xe siècles dans les Pyrénées orientales et centrales', pp.153-66 in P. Bonnassie [Ed], *Le clergé rural dans l'Europe médiévale et moderne. Actes des XIIIèmes Journées Internationales d'Histoire de l'Abbaye de Fleuran*, Toulouse (Presses universitaires du Mirail) 1991.

Lluís To Figueras, 'El marc de les comunitats pageses: *villa* i parròquia en les diòcesis de Girona i Elna (final del segle IX – principi de l'XI)', pp.212-39 in Xavier Barral i Altet *et al.*, 1991.

Catafau, 1999.

projects. As was the case in Urgell, the majority owed their existence to the collective action of villagers, and were frequently linked to long-established population centres, the remainder being founded by the comital house, by subordinate members of the elite or by monasteries. A number of churches appear as dependencies of Cuxa in the charter issued by Pope Agapetus II in 950,319 but no mention is made of the original donors, or of their enjoying parochial status. An earlier record of ca.878 does survive for the transfer to Exalada of Saint-Pierre dels Forcats,320 where the term *parrochia* was applied to the territory assigned to the church, but this cannot be read as confirmation of episcopal oversight. However founded or owned, Visigothic tradition permitted any church to receive voluntary contributions from its congregation, and to perform the essential rituals of the faith; if served by a permanent priest, it may have been considered of parish status.

The Pyrenean hinterland is perhaps best envisaged as encompassing a number of independent religious foundations whose defined spheres of influence did not necessarily cover the whole landscape, with the inhabitants of less populous areas being particularly ill-

³¹⁸ To Figueras, 1991.

³¹⁹ Appendix F.

Marca: col.831. Cf. Pierre Ponsich, 'Le domaine foncier de Saint-Michel de Cuxa', Études roussillonnaises [1:2] 1952, pp.67-100: the entry is incorrectly attributed to 898, two years after the death of Miró I, who was a co-signatory of the act. Ponsich prefers a date of ca.878 as reference is also made to Saint-André d'Exalada, which was destroyed in that year and never subsequently mentioned in deeds of gift. The donation also included Saint-Vincent de Camplong (Vernet), which had been held illegally by private individuals since the time of Saloman: its restitution to the comital house was the result of legal proceedings by Miró early in his reign, and supports the view that maladministration was rife prior to his succession in 870. Saloman is known to have ruled Conflent at some time between 846 and 862, and may have been of Frankish descent: Lewis, 1965; p.108ff. The Gesta comitum barcinonensium gives his place of birth as Ria, and claims that he was murdered by Guifred le Velu, but this version of events is generally discounted; see Ponsich, 1951.

Susan Wood, *The Proprietary Church in the Medieval West*, Oxford (Oxford University Press) 2006, p.95*ff*. Churches passing from private hands to a monastery may have been reconstituted as collegiate institutions, or fraudulently declared as such to avoid episcopal taxes and control. Also, Riu & Valdepeñas, 1994: although the area served was commonly specified early in the 10th century, the designation 'parish church' does not appear in Catalonia before ca.980.

For problems of definition and the mutation of the parish during and after the Carolingian period, see Dominique logna-Prat & Élisabeth Zadora-Rio, 'Formation et transformations des territoires paroissiaux', *Médiévales* [49] 2005, pp.5-10. Also, Michel Lauwers, 'Paroisse, paroissiens et territoire. Remarques sur *parrochia* dans les textes latins du Moyen Âge, *Médiévales* [49] 2005, pp.11-31; Élisabeth Zadora-Rio, 'Territoires paroissiaux et construction de l'espace vernaculaire, *Médiévales* [49] 2005, pp.105-19;also, 'The Making of Churchyards and Parish Territories in the Early Medieval Landscape of France and England in the 7th – 12th centuries: A Reconsideration', *Medieval Archaeology* [47] 2003, pp.1-19. Henri Platelle, *Presence de l'Au-delà. Une vision médiévale du monde*, Villeneuve d'Ascq (Presses universitaires du Septentrion) 2004, pp.190-95.

served. The sustained building programme of the early 11th century may, at least in part, have been driven by the need to extend the reach of the Church into such localities. As late as 1031, for example, the consecration charter of Sainte-Eulalie de Fuilla d'Aval makes no reference to neighbouring jurisdictions in setting the limits of its parish.³²³ Significantly, the area delineated extends north of the natural boundary formed by the Têt to cover the inhospitable slopes of the Fenouillèdes west of Villefranche, which may have constituted unadopted territory between the villages of Fuilla, Serdinya, Conat and Ria.³²⁴

As a church is known to have existed at Fuilla at the beginning of the 10th century,³²⁵ the imprimatur of the bishop of Elne attached to the new building implies a change of status. The assumption of episcopal control over the church, the defining of the territory to be served and the financial contributions to be made by the populace appear to confirm the creation of a parish, or at least the acknowledgement of one which previously lacked official recognition. A similar expression of authority marked the dedication of Saint-Paul de Py, a dependency of Camprodon, where both Oliba and his nephew Guifred, archbishop of Narbonne, were present at the ceremony.³²⁶

³²³ Appendix Q: I.15ff.

Mallet, 2003: pp.204-5. A small chapel on the ridge above Villefranche, Saint-Étienne de Campilles, possibly dates to the early 11th century. The other churches on the headland separating the Têt from its tributary, El Callau, are of 12th century origin and sited in hamlets, pointing to a gradual demographic change. That of Saint-André de Belloc later achieved parish status. Further to the west, Saint-Marcel de Flassa occupies a similarly isolated site, and remained a suffragan of the parish church of Serdinya until its disaffection: the building is variously dated to the late 10th or early 11th century, and thus possibly represents an early pioneer settlement in the uplands; below, pp.219-20.

Ponsich, 1980; p.107: the first record relates to 906.

³²⁶ Appendix P.

The role of the comital house of Cerdagne-Conflent during the long 10th century.³²⁷

The appearance of aristocrats of Visigothic heritage as *de facto* rulers of the Spanish March in the latter decades of the 9th century added an extra dimension to the development of monastic life, their resources being channelled into both new and existing institutions.³²⁸ A precedent was set by Guifred le Velu, who founded both Sant Joan de les Abadesses (871) and Santa Maria de Ripoll (872) shortly after assuming control south of the Pyrenees.³²⁹ Material support for Benedictine monasticism was stimulated to some extent by the territorial misalignment between civil and ecclesiastical authorities, diocesan oversight of greater Cerdagne, for example, being exercised from three centres: Girona, for Besalú and the Ripollès; Elne for Conflent, Vallespir, Haut Rosselló and the Fenouillèdes; and La Seu d'Urgell for the Cerdagne plateau. An investment in local institutions therefore acted as a counterweight to cathedral chapters open to manipulation at the hands of rival dynasties.³³⁰

The attention of the comital family in Conflent was initially directed to ensuring the viability of Saint-André d'Exalada, count Miró I obtaining confirmation of its possessions from Charles the Bald in 871.³³¹ Exalada accumulated considerable property in the upper Têt valley in the decades prior to its destruction during a flash flood in 878: details of the donors and

The term is used to define the period between the establishment of Cerdagne-Conflent as a discrete polity under Miró I in 870, and the point when its territorial expansion was consolidated by Oliba Cabreta (†988). With the exception of Donezan and Razès, which were only temporary gains, its boundaries remained unchanged throughout the First Romanesque period.

Jordi Camps i Sòria & Immaculada Lorés i Otzet, 'Le patronage dans l'art roman catalan', *SMC* [36] 2005, pp.209-33: the example given is Sant Pere de Rodes, where the transfer of lands and immunities to the monastery in 968 by Gausfred, count of Empúries, was not directly linked to its rebuilding, which is now dated to the early 11th century. See also *Marca*, col.782.

³²⁹ Ibid..

Sagnes, 1983: p.193ff; Josep Salrach, 2019: pp.81-95. This problem lay at the heart of the late 10th century dispute between Oliba Cabreta (r.967-988) and bishop Suniare of Elne, a nominee of the comital house of Roussillon. It later resurfaced in the attempt of his son, Bernard Taillefer, to establish an independent bishopric for Besalú; below, pp.147-48.

Abadal, *CC* VII, p.80ff. Title had been acknowledged by Bera I in 846, shortly after the foundation of the monastery: *Marca* col.782. The need for this to be ratified in 871 has been interpreted by Abadal and others as reflecting the breakdown of civil administration in the intervening period; the wording of the charter is unusual in confirming the status of Protasius and his companions; *Appendix* B, line 5.

the nature of their gifts were listed in documents drawn up immediately after the disaster to replace lost charters. An overall pattern emerges of small-scale contributions in both land and livestock made by the local populace in order to sustain the community, rather than to fund capital expenditure on its buildings.³³²

With the re-establishment of the community at Cuxa, Miró's further protection was solicited by Protasius, its abbot, in his will of 878.³³³ After Miró's death in 896, control of the county passed to the fourth son of Guifred le Velu, Miró II, whose descendants were largely responsible for enhancing the monastery's status and security during the 10th century.³³⁴ Their financial support enabled the institution to underwrite the three building programmes carried out in this period: the erection of an oratory dedicated to Saint-Michel; the rebuilding of the original church of Saint-Germain; and finally the construction of the surviving abbey church, which probably annexed the site of the oratory whilst retaining its title.³³⁵

The committal of family resources to the support of Cuxa was directed by Miro II's widow, the countess Ava, and eldest son, Sunifred II, who succeeded his father as count of Cerdagne-Conflent in 927.³³⁶ Countess Ava donated land at Fuilla in 941, apparently in connection with the construction of the oratory dedicated to Saint-Michel; significantly, the charter recording the transaction was countersigned by her four sons, presumably because it involved alienating land which they would otherwise inherit.³³⁷ In her will of 962 she also

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Marca col 801, dated 878. Appendix C. In this charter and others drawn up in the following year, individuals confirmed donations that had previously been made to Exalada; Marca cols.804, 806, 810, all dated 879. The detailed descriptions of the holdings underline the small parcels of land commonly transferred by members of the local population.

Marca col.803, dated 878. Appendix D.

Miró I was the brother of Guifred le Velu; on his death Guifred's son, Miró II, assumed control of Cerdagne-Conflent.

See Chapter 6.

The regnal number tends not to be used in Catalan sources.

The approval of family members for donations to monasteries became more common in the 11th century, the reciprocal duty of the community being to hold masses for the soul of their patron: Stephen D White, *Custom, kinship and Gifts to Saints: the* laudatio parentum *in Western France 1050-1150*, Chapel Hill, NC & London (University of North Carolina

transferred extensive personal holdings in the neighbourhood of Prats-Balaguer, which consolidated Cuxa's estate in the Upper Têt valley.³³⁸

Documents summarising Sunifred's gifts also date from the 940s, and continue until his death in 966. His decisions were endorsed by other members of the family: the consecration document of Saint-Germain (953), a replacement for the first church on the site, specifically links his mother, the countess Ava, and brother, Oliba Cabreta, to Sunifred's donations to the building. His testament of 966 added further properties to Cuxa's estate, and must be read in conjunction with that of his mother in being designed to sustain work on the new abbey church of Saint-Michel, which had begun a decade earlier and was finally consecrated in 974. 341

Sunifred's influence extended into the political field, where moves to align Cuxa more closely with Rome were reflected in the Papal protection obtained for the community in 951.³⁴² The appointment of Garin as abbot in ca.965 also linked the foundation to the reform movement emanating from Cluny, where he had received his initial training.³⁴³ Garin was well-travelled, having visited Rome, Venice³⁴⁴ and Jerusalem, and experienced in monastic administration, eventually controlling a group of monasteries in the Aude-Garonne corridor.³⁴⁵ He would therefore have been familiar with contemporary trends in church

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Press) 1988, p.33ff. First mentioned in 938, the original Saint-Michel may have been built to a centralised plan on the site now occupied by the apse of the abbey church: below, p.118.

This is specified as an allod inherited from her husband: *Marca* col.879. *Appendix* K.

Marca col.868. Appendix H.

³⁴⁰ *Marca* col.879. Properties at Prats-Balaguer, Estoher and Finestret.

³⁴¹ Annendix I

Marca col.864: Appendix F. This version is erroneously dated to 950.

Ponsich, 1989; Anscari Mundó, 'Moissac, Cluny et les mouvements monastiques de l'Est des Pyrénées du Xe au XIIe siècle', *Annales du Midi* [75] 1963, pp.551-73; cf. d'Abadal, 1954: pp.204-08; Ponsich, 1970.

D'Abadal, 1954: pp.218-24; Ponsich, 1970: Garin offered refuge to the exiled Doge of Venice, Pietro Orseolo, and his companions Romuald (later canonised) and Marinus, the latter two living as hermits in the vicinity of the abbey. Romuald later founded the Camaldolese Order at Fontebuono, Tuscany in ca.1012.

Ponsich, 1970: the monasteries concerned were Saint-Pierre de Lézat (Ariège), Saint-Pierre de Mas-Garnier (Tarnet-Garonne), Sainte-Marie d'Alet, and Saint-Hilaire (Aude);

planning and construction as well as the architectural landscape of Languedoc, and was possibly engaged at Cuxa specifically to oversee the completion of the new abbey church.³⁴⁶

The example set by aristocratic benefactors was followed by individuals of lower social status, their actions possibly being a response to increasing dangers of dispossession at the hands of more powerful families.³⁴⁷ There was nevertheless a tendency for transactions to be most common in areas where lands belonging to the comital family had already been transferred: the acquisition of estates at Baillestavy from Sunifred in 949, for example, was followed at regular intervals by gifts from local inhabitants, and a similar process occurred at Torreilles, on the Roussillon coast.³⁴⁸ Given that the monastery also sold some of the holdings it received, it appears that a policy of consolidation around specific focal points was adopted.³⁴⁹ Contiguous territories were accumulated around Cuxa itself, as well as in the vicinity of the historic birthplace of the community in the upper Têt valley, ³⁵⁰ and along the axis linking the iron mining centre of Baillestavy to the forges of the Llech valley.³⁵¹

Work on the new church, begun in 956, appears to have stalled under Abbot Pons, and required a man of proven capabilities to complete a project championed by Sunifred himself; see d'Abadal i de Vinyals, 1954: p.209: also Immaculada Lorés Otzet, 'L'arquitectura monàstica preromànica i les seves relacions amb Europa: Sant Miquel de Cuixà', *Història, art i cultura de la Terraconense mediterrània entre els segles IV i X*, Barcelona (Enciclopèdia Catalana) 1999, pp.414-16; 'Els promotors en l'art català del segle X', *Catalunya a l'època carolingia*. *Art i cultura abans del romànic (segles IX i X)*, Barcelona (Museu National d'Art de Catalunya) 1999, pp.191-95.

Lewis, 1965: pp.253-55. A number of 9th century Catalan churches are recorded in their consecration charters as being sponsored by prominent families: Puig i Cadafalch, 1907-17, v2, pp.43-44.

D'Abadal, *CC*; for Baillestavy: Seniofred 949, then individuals 955, 956, 959, 964, 974, 975, 982; for Torreilles: Seniofred 961, then individuals 961, 965, 966, 976, 981, 982, 986, 988, 998. A comprehensive list of possessions is included in D'Abadal, 1954: pp.181-91.

Ponsich, 1952. An early example cited is the transfer of property at Fuilla to count Miró I, this in exchange for holdings at Ocenias which bordered the large tract of land the monastery owned in the Upper Têt valley.

Bolòs, 1999, pp.75-76. These acquisitions increased the potential to raise cattle, an activity monopolized by Benedictine houses. A comparison between two Carolingian charters relating to Sainte-Marie d'Arles sur Tech shows the later document adding rights of pasturage to the privileges enjoyed by the abbey.

Cf. Jarrett, 2003, for a similar policy at Sant Joan de les Abadesses. The activities of viscount Salla are also instructive: having been granted the *villa* of Aquatebia by Sunifred II, confiscated from the previous incumbent on the grounds of disloyalty, he concentrated his energies on acquiring control of extensive frontier territories in the neighbourhood of Manresa, where he founded the monastery of Sant Benet de Bages. See Jordi Gibert Ribull, 'Del Conflent a la conca d'Òdena. La família del veguer Sal.la dins el marc de l'expansió del comtat d'Osona-Manresa al segle X', *Miscellanea Aqualatensia* [16] 2015, pp.33-42.

On his death without issue, the baton passed to Sunifred's brother, Oliba Cabreta (r.965-990), whose energies were directed more to earthly than spiritual ends. Whereas Sunifred had maintained cordial relations with his neighbours, Oliba Cabreta pursued an expansionist policy which elevated Cerdagne-Conflent to a dominant position in the confederation of Marcher counties in the late 10th century. Support for Saint-Michel de Cuxa – still under the effective control of Garin - apparently continued during this period, but Oliba Cabreta's major contribution to the religious infrastructure of the broader region was his rebuilding of Santa-Maria de Ripoll, the new church being consecrated in 977. Two years prior to his death Oliba Cabreta installed his sons as *de facto* rulers of the territories controlled by the comital house and retired to Monte Cassino. The new generation was at the height of its powers during the first half of the 11th century, and included two individuals who were noted promoters of First Romanesque architecture, and whose influence will be discussed below.

Sagnes, 1983: pp. 193-94. Oliba Cabreta succeeded in reuniting the territories of the comital house on the death of his brother Miro Bonfils, count of Besalú. His belligerent character was at odds with that of his brother: offensive action against his kinsman, Roger of Carcassonne, brought areas north of the Fenouillèdes – Donazan, Peyrepertuses and Sabarthès – temporarily under the control of Cerdagne.

Camps i Sòria & Lorés i Otzet, 2005. Also, Ponsich, 1970: Garin appears to have relinquished his abbacy in the late 980's but remained at the abbey until his death early in the next decade.

Sagnes, 1983: p.194.

Chapter 5

Pre-Romanesque precedents

Debate on the personnel responsible for the prolific building activity that occurred in Catalonia during the early decades of the 11th century has yet to reach firm conclusions, especially in regard to the provenance of the masons involved. Both Puig's initial proposition that the numerous churches of the period were the handiwork of the *magistri comacini*, and his later assertion that they were largely built by indigenous labour, have been disputed by modern scholars, but without a compelling alternative explanation being offered. The default position is thus one that invokes the presence of a limited number of imported master masons who directed work at high-status sites, and trained local artisans to fulfil a similar role in the surrounding countryside.

This stance fails adequately to address issues relating to the social status, prior experience and technical competence of the rank-and-file members of the workforce, or their potential to produce individuals capable of assuming responsibility for site management and, in the case of rural churches, the design of specific projects. The volume of building work undertaken throughout Catalonia in the first half of the 11th century demanded that the overseers of many projects were not the product of a monastic atelier, but were nevertheless capable of achieving complex and structurally sound buildings. If an influx of skilled craftsmen from abroad is discounted, resolution of the issue must be sought in the architectural landscape of the province in the decades before the turn of the first millennium, when stone again became the medium privileged by the patrons of religious buildings.

Construction during the 8th and 9th centuries.

The provenance of able construction workers assumes a particular significance in Roussillon, where building lore accumulated in the centuries of Visigothic control was dissipated during the Moorish occupation. The skills required to raise bonded masonry, rare in a region where timber, *pisé* or drystone walling were the media characteristic of vernacular architecture, were concentrated on the plain and unlikely to have survived the eclipse of the church authorities or the dispersal of the urban population.³⁵⁵

Similarly, there is no documentary evidence to suggest that enough of the built environment survived to furnish models for future use. A significant casualty of the Muslim presence was the episcopal precinct sited within the walls of Elne, a complex which might have reflected the renewed interest in monumental architecture associated with Visigothic ecclesiastical centres of the late 7th century. No other contemporary sites of sufficient status to employ expert craftsmen have been identified in Roussillon, either from documentary sources or archaeological investigation. The underdeveloped local economy and distance from the political heartland of the Visigothic Kingdom explains the absence of elaborate private or diocesan churches, but not the lack of references to monastic foundations. The vibrancy of this strand of religious expression in Iberia argues for the existence of cloistered communities in Roussillon prior to the invasion, and the possibility that they were a repository of technical expertise.³⁵⁶ There are, however, no echoes of such knowledge being

María de los Ángeles Utrero Agudo, 'The Artisans behind Visigothic Buildings: the Materiality of Identity', *Visigothic Symposia* [2] 2017-18, https://visigothicsymposia.org, p.99-133 (consulted 22.10.2020) This paper challenges the 'continuity' theory frequently evoked when discussing Asturian architecture, and considers that the craft skills developed by Visigothic builders declined after the occupation. Also, Luis Caballero Zoreda & María de los Ángeles Utrero Agudo, 'Una aproximación de las técnicas constructivas de la Altad Edad Media en la Península Ibérica. Entre visigodos y omeyas.' *Arqueología de la Arquitectura* [4] 2005, pp.169-192.

André Bonnery, 'Églises abbatiales carolingiennes. Exemples du Languedoc-Roussillon', *SMC* [20] 1989, pp.29-59.

held in the collective memory and applied when substitute places of worship were constructed in the Pyrenean hinterland.

The obscurity which surrounds the building trades only begins to be lifted some two decades after the fall of Barcelona in 801, when written records again attest to a renewal of activity in Roussillon. The preoccupations of the settlers who moved into Roussillon were understandably with the pragmatic rather than the permanent, making the raising of conventional masonry too onerous to contemplate even had the security situation warranted such investment, or the necessary infrastructure remained intact. With the possible exception of the monastery founded at Arles-sur-Tech, there is no indication that the incomers revived the art of building in stone, and even here the adaption of existing structures does not necessarily imply that lime mortar was employed in their renovation.³⁵⁷

Contemporary scholarship tends to the view of Eduard Junyent, who maintained that mortar-bonded masonry was not in widespread use by Catalan church-builders before the early 10th century.³⁵⁸ It was only after the defences of the region had been overhauled, and a symbiotic relationship had developed between the counts and the principal monasteries within their jurisdictions, that investment in permanent buildings became a practical proposition rather than simply an expression of faith. Unlike the situation in north-western lberia, where an expansionist Christian enclave preserved its cultural identity and an uninterrupted tradition of church building during the 8th and 9th centuries, these were not strengths shared by Catalan society, and had to be forged anew after the establishment of the March. ³⁵⁹

Marca, col.766, dated 821.

Junyent, 1983: p.61.

³⁵⁹ Walker, 2016: p.218ff.

10th century architectural developments in Conflent

The earliest documentary evidence of a shift to masonry bonded with lime mortar in Conflent dates to 953, and refers to the Benedictine monastic site of Cuxa, where its use is witnessed in the consecration charter of a rebuilt church dedicated to Saint-Germain d'Auxerre. The system of raising the masonry – ex calce & lapidibus – contrasts with that used in the earlier structure, where the process – ex luto & lapidibus – indicates that earth or clay was either used as a bonding agent, or comprised a significant proportion of the fabric. Itime mortar may also have been employed at an adjacent oratory dedicated to Saint-Michel, which dates from the same period.

Saint-Germain was superseded by the grander abbey church of Saint-Michel in the period between 956 and 974, this constituting the only prestigious Pre-Romanesque building in Roussillon with its original ground plan and fabric largely intact, and where written sources not only attest to its foundation and consecration, but shed some light on the influences and personalities contributing to its design. As such, it has been used to date smaller churches which have survived – in whole or in part – throughout the region to the latter half of the 10th century, with the result that an artificial caesura has been introduced to the rhythm of architectural developments in the region. This manifests itself in a tendency to credit the monastic movement with a dominant role in promoting the use of conventional masonry and

MH Base Mérimée, PA 00103995 (designated 1958); Ponsich, 1980; p.101. Given the primitive fabric, it is unlikely that the earlier church was the *cella Sancti Germani* documented in 866, but the most recent of a number of replacements constructed over the intervening period. Cf. Pierre Bonnassie, 1975: p.482; an average of thirty years is considered a reasonable lifespan for churches built without the aid of mortar. For the dedication to Saint-Germain d'Auxerre, see Étienne Fels & René Louis, 'Les églises carolingiennes de Cuxa', *Bulletin de la Société nationale des Antiquaires de France* 1948, pp.48-62.

Appendix H, lines 16-21. The phrase ex luto & lapidibus could equally apply to a building of pisé with stone revetments, or one where earth was used as packing material. See Junyent, 1983: pp.53, 212; cf. Xavier Barral i Altet, L'art pre-romànic a Catalunya, Barcelona (Edicions 62) 1981, pp.64-65.

underwriting the necessary infrastructure – training, transport, the sourcing of materials and the production of lime.

An alternative agency for change existed in the military field, however, where fortifications constructed of mortar-bonded stone predated its use on religious sites. In Conflent, for example, a castle at Rigarda is mentioned as early as 864,³⁶² and those of Vinça,³⁶³ Corneilla de Conflent³⁶⁴ and Paracolls³⁶⁵ have all been assigned a late-9th century date. An increase in castle-building during the 10th century served to further stimulate the building trades and ancillary activities, and suggests that the techniques of conventional masonry construction were circulating within the ranks of local artisans, and at the disposal of the sponsors of community churches, prior to their application at Cuxa.

Saint-Michel nevertheless retains its primacy when discussing the broader aspects of Pre-Romanesque religious architecture in Catalonia north of the Pyrenees, a debate which hinges on the extent to which Islamic aesthetics and techniques impacted on the design and structural framework of local churches. In designating Saint-Michel as an example of 'Mozarab' building practice, Félix Hernández linked it to a series of Iberian churches identified by Manuel Gómez Merino as the work of Christian patrons and artisans inspired by developments in Al-Andalus from the late 8th century onwards.³⁶⁶ His conclusion was prompted by the ubiquitous use throughout the abbey church of arches with a horseshoe

³⁶² *CR* p.493.

³⁶³ CR p.544-45

³⁶⁴ CR p.401

³⁶⁵ *CR* pp.314-18. A chapel dedicated to Saint Peter was constructed alongside the northern curtain wall of the castle in the early 11th (or late 10th) century. It is a unicellular building with the axis of the semi-circular vaulted apse slightly deflected to the south: this feature, combined with the lack of exterior ornament and the nature of the fabric explains the leaning towards an earlier date

Félix Hernández Jiménez, 'San Miguel de Cuixá: iglesia del ciclo mozárabe catalán', *Archivo español de arte y arqueología* [8:23] 1932, pp.157-200. Cf. Manuel Gómez Moreno, *Isglesias mozárabes: arte español de los siglos IX a XI*, 2v. Madrid (Centro de Estudios Historicos) 1919; for distinguishing features, [1] Preámbulo, p. xix; for Catalonia, [1] pp. 41-70. The term 'Mozarab' denotes those Christians living in Al-Andalus who adopted elements of Arab culture whilst retaining their religious identity.

profile, these supporting the nave arcades, where they spring from massive rectangular piers, and recurring in the framing of the external doorways, the entrances to the twinned lateral apses and the communicating passages between them [46,47].

The case for immigrants working at Cuxa having a technological advantage over their Catalan counterparts rests on the privileges accorded to Mozarab communities under Moslem rule. Prior to the late 9th century, a degree of religious tolerance permitted church construction to continue in Spain, and craftsmen to absorb the technical innovations of their overlords.³⁶⁷ Conventional wisdom sees this as an 'accretive' process, with methods familiar to the Hispano-Roman section of the population gradually being augmented by those introduced by Middle Eastern or North African immigrants.³⁶⁸ In undertaking the transformation of Córdoba in the 780s, for example, 'Abd al-Rahmān I was dependent on local manpower employing the same technical procedures, logistics and mathematical principles as those of the previous century.³⁶⁹ As the structural framework of the Grand Mosque attests, materials continued to be obtained from Roman sites, and it was some decades before the quarrying, dressing and carving of native stone was revived.³⁷⁰ The supports of the prayer hall reflect the limitations imposed by a reliance on spolia, with the lack of columns of suitable height leading to their arrangement in tiers, and a dearth of precut stone voussoirs requiring salvaged brick to be used in their stead.³⁷¹

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Collins, 2004: pp.195-96; also *Law, Culture and Regionalism in Early Medieval Spain*, Aldershot (Variorum) 1992, Ch. XIV. For documentary records: Rafael Puertas Tricas, *Iglesias hispánicas (siglos IV al VIII)*, Madrid (Ministerio de Educación y Ciencia) 1975, pp.253-62: extracts from the works of Saint Eulogius relate to new churches built in the mid-9th century by Christian communities in Muslim Spain. Cf. d'Abadal, 1986, where a more tentative conclusion is drawn.

³⁶⁸ Walker, 2016: pp.18-22.

Bango Torviso, 2008.

J. B. Ward-Perkins, 'Quarrying in Antiquity. Technology, Tradition and Social Change' (Mortimer Wheeler Archaeological Lecture), *Proceedings of the British Academy* [LVII], London (Oxford University Press) 1972.

Robert Hillenbrand, "The Ornament of the World". Medieval Córdoba as a Cultural Centre', pp.112-35 in Jayyusi, S. K & Marín, M. [Eds], *The Legacy of Muslim Spain*, Leiden (Brill) 1992.

The evolution of Islamic expertise and aesthetics lay at the heart of an article published in 1935 by Puig and Georges Gaillard, which supported Hernández' view of Saint-Michel de Cuxa as a product of Mozarab builders, ³⁷² and capitalised on archaeological work carried out in the previous two seasons to attempt a theoretical reconstruction of the building. The profile of the arches again held centre stage: this was described as slightly stilted, the distance between the summit and spring line being gauged as approximately 1.5 times the length of the radius of an inscribed circle, a ratio applied in the earliest phase of construction at the mosque of Córdoba during the 770s [48]. Significantly, the points of origin of the arc were assumed to have been unaffected by later modifications to the building, and thus displayed little or no projection beyond the line of the reveals of the opening.

However, by the second quarter of the 10th century, and thus well before the building of Saint-Michel, this form had been superseded in Al-Andalus by the Umayyad profile adopted throughout the new capital city of Madinat al-Zahra³, founded to the west of Córdoba in 936 by ʿAbd al-Rahman III (r.912-961).³⁷³ Here the intrados of the typical arch describes approximately three-quarters of a circle from origins set well within the verticals of the underlying supports, the whole being enclosed in a rectangular frame (*alfiz*) [49]. No explanation for the archaic choice of model at Cuxa is given by the authors, an omission which assumes added importance when attention shifts to the fabric, and the large masonry blocks used to reinforce the angles of the envelope. A predominant pattern of two 'headers' to one 'stretcher' was identified and again likened to practice at Córdoba, but in this case during Al-Hakam II's enlargement of the mosque in the years following his accession in 961. This was

Josep Puig i Cadafalch & Georges Gaillard, 'L'église Saint-Michel de Cuxa', *BM* [94:3] 1935; cf. Georges Gaillard, 'La Catalogne entre l'art de Cordoue et l'art roman: Influences musulmanes sur l'art préroman en Catalogne', *Studia Islamica* [6] 1956, pp.19-35.

Jonathon M. Bloom, Architecture of the Islamic West. North Africa and the Iberian Peninsula, 700-1800, New Haven & London (Yale University Press) 2020, p.51.

certainly an era when the Catalan counts had little option but to accept the ascendancy of the Caliphate, and contact between Córdoba and Barcelona was frequent: it also coincided with the period when building activity at Cuxa was at a crucial stage.³⁷⁴ The assumption of a familiarity on the part of the master-mason concerned with contemporary Andalousi architecture is therefore defensible, but does not explain the choice of an out-dated profile for the horseshoe arches, or the manner in which they were constructed.

In the post-war period, this discrepancy was re-examined by Pierre Ponsich, who highlighted important differences between the arches at Cuxa and their Andalousi counterparts.³⁷⁵ In all the examples that were not subjected to later modification, the summit of the arch was found to be depressed and, contrary to the view put forward by Brutails, this was considered an original feature and not the result of settlement.³⁷⁶ Furthermore, the major part of the opening was achieved by corbelling, with an increasing projection of successive courses being stabilised by the weight of the masonry above, and only the top section – approximately one fifth of the arc – relying on radially arranged blocks to support the overburden. Ponsich also maintained that the origins of the arches were originally set within the line of the jambs in Umayyad fashion, this detail being lost during later remodelling of the interior of the building. However, the survival of a projecting impost block in the masonry of the opening between the south aisle and transept is the only evidence to support this assertion, with the fabric of the arcade piers in particular showing no signs of such specialised components having been removed or cut back.

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Bonnassie, 1990, p.165.

Ponsich, 1971; the theme was revisited in 'L'architecture religieuse préromane des pays de Roussillon, Conflent, Vallespir et Fenolledès', *SMC* (XIV) 1983, pp.3-15.

³⁷⁶ Brutails, 1901: p.60ff.

Ponsich's analysis of the building has the advantage of conforming with an historical narrative linking the expansion of the community at Cuxa – and thus the need for a new abbey church – to the repressive policies of Mohammed I (852-886), which drove committed Christians to seek refuge beyond the borders of the Caliphate. Parallels can be drawn with the situation in north-western Spain, where a concentration of Mozarab immigrants in the upper Duoro valley saw horseshoe arches reintroduced to Asturian architecture in the early 10th century. The central tenet of Ponsich's analysis was that the indigenous artisans of Catalonia similarly lacked the necessary skills to contemplate projects on the scale of Cuxa, or meet the technical challenges presented by its structural complexity, both factors which indicated the presence on site of Mozarab craftsmen at key stages of the project's design and construction.

Alternative perspectives on the origins of the horseshoe arch.

The use of corbelling at Saint-Michel contrasts with the means employed in raising the arches at Madinat al-Zahra³, where the wall masonry consists of small blocks set in abundant mortar and moulded to the required form by continuous formwork [49]. Precedents for the work at Cuxa existed in earlier traditions, corbelling being employed locally in the circular shelters – *orri* – associated with early pastoral farming, and in the method employed by Roman engineers in constructing the lower horizons of barrel vaults.³⁷⁹ Furthermore, far from being the exclusive preserve of Islamic architects, the horseshoe profile is associated with the few examples that survive of Iberian churches constructed in

Above. p.27n.

³⁷⁸ Fernie, 2014: pp.60-61; Durliat, 1985: pp.334-37 & illustrations, pp.507, 508; Walker, 2016: p.182.

³⁷⁹ Ponsich, 1971.

the last decades of the Visigothic kingdom.³⁸⁰ Archaeological investigation of religious sites dating from as early as the 5th century confirm that its use may have been inspired by Hispano-Roman motifs,³⁸¹ or familiarity with the Early Christian monuments of northern Italy.³⁸² The apse of a 6th century church constructed in the Roman amphitheatre at Tarragona possibly adopted the profile for its internal ground plan, and furnished a model for the design of later Visigothic structures.³⁸³ At its height, the kingdom also benefitted from the opening of communications across the Mediterranean basin at the time of Justinian, when the southern coast of Spain became an outpost of Byzantium.³⁸⁴ This raises the possibility that the early annexation of the profile by both Visigothic and Islamic architects was influenced by exposure to, or knowledge of Near Eastern monuments, and pre-dated the arrival of Damascene craftsmen in Al-Andalus.³⁸⁵

The reappearance of the form in the ground plan of religious buildings sited across southern Frances from Valcabrère (*Haute-Garonne*) to Venasque (*Vaucluse*) before the turn of the 8th century must be seen in this context.³⁸⁶ The date of these examples precludes their having referenced Islamic models, which only became rooted in Iberia with the later

Conant, 1979: p.93. The examples cited are San Juan Bautista, Baños de Cerrato (Palencia), and Santa Maria de Quintanilla de las Viñas (Castile & León). For a detailed analysis of Baños, see Luis Caballero Zoreda & Santiago Feijoo Martínez, 'La iglesia altomedieval de San Juan Bautista en Baños de Cerrato (Palencia)', *Archivo Espagñol de Arte* [71] 1998, pp.181-242. For objections to the early dating of these monuments, see Walker, 2016: p.131.

Puig i Cadafalch, 1909-18; v.2, p.378, fig.511;

Mirabella Roberti, 1988.

³⁸³ Walker, 2016; p.117.

For Byzantine influence on early Islamic architecture, see Robert Hillenbrand, 'The classical heritage in Islamic art: the case of medieval architecture', *The Scottish Journal of Religious Studies* 1986, pp.123-40; Ignacio Arce, 'Umayyad Building Techniques and the Merging of Roman-Byzantine and Partho-Sassanian Traditions: Continuity and Change', *Late Antique Archaeology*, [4:1] 2008, pp.491-537. A modern interpretation of the date, extent, administrative structure and defences of Byzantine Spain is offered by Jamie Wood in 'Defending Byzantine Spain: frontiers and diplomacy', *Early Medieval Europe* [18:3] 2010, pp.292-319. Wood cites examples of diplomatic exchanges and bilateral trade as evidence of contact between the enclave and Visigothic territory.

Peter Draper, 'Islam and the West: the Early Use of the Pointed Arch Revisited', *Architectural History* [48] 2005, pp.1-20. The evolution of the form during the Umayyad caliphate is traced from Byzantium to Syria, the Dome of the Rock (completed in 691) and the Great Mosque of Damascus (begun in 705). By the 870s, horseshoe arches were in regular use in North Africa (for example at Qairouan, in Tunisia), and thus potential models for Andalousi builders.

This contrasts with the situation in Asturias where the horseshoe profile was abandoned in favour of the semicircular form; see Fernie, 2014: p.60.

development of Córdoba as the administrative centre of Andalusia.³⁸⁷ The inclusion of the profile in the architectural vocabulary of Carolingian builders is thus unlikely to have been the result of familiarity with Islamic practice, but rather the prolongation of an earlier tradition. In Septimania, moreover, the cultural and religious identity of the indigenous population was anchored in its fervent opposition to Islam, a political stance which would have resisted the infiltration of forms and aesthetics associated with the enemy.

Although the identification of a variant of the Pre-Romanesque style with Visigothic overtones is generally restricted to developments in southern France, the presence of Hispanic émigrés within the Carolingian church hierarchy ensured that its impact was more widely felt.³⁸⁸ The church at Germigny-des-Prés (*Loiret*) built early in the 9th century by Theodulph, the Gothic bishop of Orléans, incorporates the horseshoe outline in both plan and elevation,³⁸⁹ and a similar aesthetic was revived south of the Pyrenees at Egara (*Barcelona*), a monument now considered to date from the early period of Frankish occupation.³⁹⁰

Citing these precedents is not intended to contradict the view that Mozarab masons were involved in the work at Cuxa, but merely to raise the possibility that a predisposition for the horseshoe profile owed much to the aesthetic values embedded in Visigothic society. A shift in focus from south of the Pyrenees is further justified when the overall design of the

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³⁸⁷ Bloom, 2020: pp.17-21.

Michel Zimmermann, 'Les Goths et l'influence gothique dans l'Empire carolingien', SMC (23) 1992, pp.31-46.

Conant, 1979: pp.51-53. The South Tyrolean church of San Benedetto, Malles Venosta, Italy is also cited. Zimmermann, 1992: Theodulph was one of a number of Goths appointed to key jurisdictions: others include Agobard (†ca.840), archbishop of Lyon; Claude (†821), bishop of Turin; and Prudence Galindo (†861), bishop of Troyes.

Dodds, 1977.

abbey church is taken into account, this being reminiscent of the model introduced to the Carolingian Empire during the ascendency of Benedict of Aniane.³⁹¹

The salient architectural features of Saint-Michel de Cuxa

The building of Saint-Michel de Cuxa coincides with the abbacy of Pons (956-75), but circumstantial evidence suggests that only faltering progress occurred during the first decade of activity on the site. It is not known how far the early work impacted on the eventual configuration of the church, its affinities to Cluny and Languedocian models being more convincingly seen as the result of Garin's management of the project from the 960s onwards.³⁹² This leaves the origins of the *architecte-concepteur(s)* of the monument, and its status as an example of Mozarab art, open to debate.

The scale of Saint-Michel sets it apart from the earlier monastic churches cited above, its footprint and spatial organisation having been adapted to cater for the organic change undergone by the Benedictine movement in the period between the 8th and 10th centuries [50]. The greater projection of the transept arms and the twinned apses opening off them constitute an adaption to the ground plan motivated by contemporary circumstances. The success of the Order in attracting benefactors both demanded and enabled the creation of additional settings for altars reserved for votive Masses,³⁹³ and a similar pressure was exerted

Carol Heitz, *L'architecture religieuse carolingienne*, Paris (Picard) 1980, pp.32-145.

Garin's arrival at Cuxa has been ascribed to either 961 or 965. Pons (†991) assumed the abbacy in 956 but retired in 975, at which point the position was filled by Garin (†996). This is consistent with the latter being responsible for the building programme in the decade prior to the consecration of the new abbey church: see Ponsich, 1970; Mallet, 2003: p.194. For similarities with Cluny II, see Kenneth J. Conant, 'The History of Romanesque Cluny as clarified by Excavations and Comparisons', *Monumentum* [7] (Journal of the International Council on Monuments and Sites), https://www.icomos.org, fig.11 (consulted 10.04.2020: no date or page numbers), The projecting transept and complex chevet of Cluny II bear a resemblance to the configuration at Cuxa: if Garin received his initial training at the monastery, his presence in Burgundy could have coincided with the planning, if not the building, of the new abbey church, which began in ca.948.

Éric Palazzo, Liturgie et société au Moyen Âge, Paris (Aubier) 2000, pp.23-24; 139. Cf. Kees van der Ploeg, Art, Architecture and Liturgy, Groningen (Egbert Forsten) 1993, pp.9-11; Elizabeth C. Parker, 'Architecture as Liturgical Setting', pp.245-93 in Thomas J. Heffernan & E. Ann Matter [Eds], The Liturgy of the Medieval Church, Kalamazoo, Mich. (Medieval

by the popularity of the cult of relics which, according to a later account by Garsias, a monk at the abbey, was enthusiastically embraced at Cuxa, and required the management of a growing number of pilgrims.³⁹⁴ These changes coincided with a more general trend which saw a marked increase in the number of Benedictine monks who were ordained, and for whom the celebration of the Mass was the ultimate *raison d'être*.³⁹⁵

Unfortunately, neither the consecration charter nor Garsias' description of the abbey church drawn up in the mid-11th century give any indication of the individual(s) responsible for the initial design of the church. Contrary to normal practice, construction is assumed to have begun at its western extremity, with at least the apse of either Saint-Germain or the oratory dedicated to Saint-Michel continuing in use on the site of the new sanctuary, an arrangement confirmed by excavations carried out in the 1930s.³⁹⁶ It appears that the earlier structure was only dismantled after the envelope of its replacement had been completed, but the new footprint must have been pegged out in advance, as it governs the dimensions of the module employed in determining the ground plan of the nave and transept arms. The north-eastern angle of the central apse as it now stands is aligned with the external face of the northern arcade, this appearing to mark the baseline used in setting out the church. Regrettably, observations regarding the geometry of the finished building shed little light on the original concept. It is by no means certain, for example, that Pons intended to construct an aisled basilica: in the absence of corroborative evidence of the above-ground structure

Institute Publications) 2005. For concentration of altars in the east end of the church, Carol Heitz, 'Architecture et liturgie en France de l'époque carolingienne à l'an Mil', *Hortus Artium Medievalium* 1995, pp.57-73.

Daniel Codina, Pascale Bourgain & Marianne Besseyre [Tr.] 'Lettre-sermon du moine Garsias de Cuxa à l'abbé Oliba', *SMC* [40] 2009, pp.65-76. Garsias names 82 individual saints and 8 relics linked to Christ and the Virgin Mary: the context suggests that all were commemorated at the principal altar.

Paul Amargier, *Une Église de renouveau. Réformes et réformateurs de Charlemagne à Jean Hus, 750-1415*, Paris (Éditions du Cerf) 1998: pp.40-48. The proportion rose from 20% in the late 8th century to 75% in the 10th.

Pierre Ponsich, 'Les problèmes de Saint-Michel de Cuxa d'après les textes et les fouilles', Études roussillonnaises [2:1-2] 1952, pp.44-66.

completed in the early phase of the project, the line of the arcades could equally correspond to the foundations of a unicellular church.³⁹⁷

Externally, the abbey church of Saint-Michel presents as a building with strong Carolingian affinities, the massing of the various components reflecting a hierarchical approach to the internal spaces [51,52].³⁹⁸ The nave rises significantly above the aisles, whilst the transept is stepped slightly lower, and extends approximately 10m beyond the line of the main body of the building. The two-storey principal apse forms a strong vertical block in the centre of the eastern elevation, and is mirrored by an extension of the nave to the west of the collaterals. There is no evidence of a superstructure above the crossing, but the configuration of the western façade opens the possibility that two flanking towers were contemplated, but never built.

The ground plan of Saint-Michel displays a high level of competence in the setting-out of the monument, with little deviation from the rectilinear being observable in the outline of its constituent internal spaces. The principles of Euclidian geometry are known to have been preserved in monastic scriptoria during the early Middle Ages, but their practical application depended on a close collaboration between theorist and craftsman.³⁹⁹ In this respect, Cuxa shows an advance on earlier buildings in Roussillon, such as Saint-André de Sorède. Here the footprint of a church destroyed by Vikings in 858 was preserved when the building was reconstructed later in the century, and reveals a master-mason adopting a modular

The possibility was first raised by Brutails, and not entirely discounted by Puig: see Brutails, 1909, p.63ff.; Puig i Cadafalch, 1909-18, v2. pp.103-4.

Carol Heitz, 'Saint-Michel de Cuxa et la tradition carolingienne', pp.53-68 in Carol Heitz [Ed], *De la création à la restauration. Travaux d'histoire et de l'art offerts à Marcel Durliat pour son 75^e anniversaire, Toulouse (Atelier de l'art méridional) 1992.*

Lon R. Shelby, 'The Geometrical Knowledge of Medieval Master-Masons', *Speculum* [47:3] 1972. Cf. E. T. Bell, *The Development of Mathematics*, New York (Dover Publications) 1962, pp.85-92.

approach. His base unit appears to have been determined by the projection of the transept arms, their length being doubled when setting-out the nave to the west of the crossing. However, discrepancies in the dimensions of the internal spaces and in the alignment of the perimeter walls of the transept reveal that his practical grasp of geometry was not perfect.

A greater level of theoretical knowledge emerges at Saint-Michel, where the ground plan combines a modular design with an accurate means of establishing radial distances from fixed points, and a consistent use throughout of a linear unit based on a cubit of 0.45m [53,54]. As evidence of the background of the master-mason, the choice of unit is significant, this being the measure associated with Roman architecture rather than that of Iberia, where the Arab version of the cubit (\approx 0.49m) was preferred.⁴⁰⁰ The case is thus strengthened for attributing the profile adopted for the formed openings within the church to the Visigothic tradition as it survived in areas north of Roussillon, rather than to Mozarab influences.

Superficially, the relationship between the internal spaces appears arbitrary but combines the approximate ratios 1:2 for the division of the building between sanctuary and nave, 1:4 for the width of the transept arms and the overall length of the nave west of the entrance to the apse, and 1:2 for the width of the aisles and that of the central vessel. The projection of the transept far exceeds that found in Languedocian churches and, in common with other major Carolingian sites such as Fulda and Centula, was intended to reference Old Saint Peters' in Rome.⁴⁰¹ Rather than being of the 'continuous' type, however, the configuration at Cuxa is that of the *transept bas* more common in the Ottonian period, with

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⁴⁰⁰ Caballero Zoreda & Utrero Agudo, 2005.

Stalley, 1999: pp.26-27; 40-45. At Old Saint Peters' the transept was at the western extremity of the nave which, in accordance with early Roman practice, was the site of the principal altar. The custom of orienting Christian places of worship is traced to the slightly later (ca.402) Saint Paul's outside the Walls, where the transept and sanctuary were placed at the east end of the building.

the openings into the nave being barely distinguishable from those in the main body of the church.⁴⁰² The relationship between the central sanctuary and the twinned lateral apses opening off the transept arms is difficult to read, the intervening section of the eastern façade comprising two-storey openings divided horizontally by massive lintels, and with horseshoe arches defining the upper level [47]. This is clearly 10th century work, and designed to allow access to the east of the site: during the First Romanesque they were adapted to form an ambulatory linking the main body of the church to three subsidiary eastern apses, but their original purpose remains obscure.

One interpretation, proposed by Puig and Gaillard, is that they were enclosed to form the setting for the two altars missing from the seven mentioned in the act of consecration, and that they shared a common roof with the adjacent apses. However, as the latter are vaulted and have semi-circular eastern walls, they bear all the signs of having been conceived — and roofed - as independent structures. Furthermore, each pair of lateral apses is linked by a narrow passage, thus providing an alternative means of communication from one subsidiary altar to another, and possibly designed to cater for the processional aspect of specific parts of the ritual. There are no signs that a similar provision was made to allow access to the principal apse via the space between the two sections of the building, leaving chapels sited in this position isolated from an important secondary means of circulation.

In a further departure from the pattern initiated at Aniane and Psalmodi, the axis of the quadrilateral main apse is deflected to the north. The deviation was imposed by the

⁴⁰² *Ibid.* The early example cited is that of Steinbach (*Hesse*), consecrated in 827. Also, Grodecki, 1958: for precedents p.45; for mutations in the design of transepts, p.17*ff*.

⁴⁰³ Appendix J, lines 36-39.

A similar configuration is found at Saint-Génis des Fontaines. The case of the ?late 10th century church of Sainte-Marie de la Cluse Haute is discussed below, pp.135-37.

orientation of the pre-existing sanctuary, which conformed to a local tradition in representing the crucified Christ in the ground plan of the church. It is the complex phasing required to maintain access to this section of the building when erecting the transept that furnishes the strongest evidence of the presence on site of an accomplished master-mason. A compelling candidate appears in the written record as accompanying Garin to Saint-Saturnin (*Aude*) in 978 in order to renovate the sepulchre housing the relics of Saint Hilaire. Unfortunately he is unnamed, as is his country of origin, which is particularly relevant when examining the structural detail of the church interior, and its putative reflection of a style which matured in lberia.

When assessing the technical competence of the master-mason, attention is immediately drawn to the span of the arches supporting the nave arcades, and especially those – approximately 5m in width - framing the openings to the transept arms. A need to counter the lateral thrust exerted by the arcades explains the longitudinal extensions to the building: the inclusion of an upper storey to the central apse achieves this objective to the east, while to the west the section of plain wall continuing the line of the arcades performs the same function. A similar discrepancy in the lengths of aisles and nave is noticeable in Carolingian churches where western flanking towers are included in the design, but is only known to occur in one other Catalan example, that of Santa Cecilia de Montserrat.

His ambition is further evidenced by the inclusion of a prominent clerestory to the nave, the lack of either internal or external buttressing above the original roofline of the aisles

Puig i Cadafalch, 1909-18: v2, p.65; also, Hélène Débax & Franck Pontiès, 'Saint Hilaire, Saint Saturnin et Roger. Un réseau guilhelmide dans le comté de Carcassonne au X^e siècle', pp.117-33 in Laurent Macé [Ed], *Entre histoire et épopée. Les Guillaume d'Orange (IX^e-XIII^e siècle)*, Toulouse (CNRS-Université Toulouse II-Le Mirail) 2006 ; Delcor, 1975.

⁴⁰⁶ Mark, 1995: p.67.

⁴⁰⁷ Delcor, 1975

implying that considerable ingenuity must have been employed in designing the structural timberwork covering the nave in order to maintain the stability of the perimeter walls [54]. It is difficult to envisage how this was achieved: Garsias acknowledges the fine quality of the carpentry involved but also marvels at the height of the nave, which suggests that tie-beams were not installed at the level of the wall plate, where they would have been most effective. Moreover, the placing of cross-members would have been dictated by the availability of suitable timbers, with those capable of spanning 12.2m (the external width of the nave) perhaps being impossible to source locally. A tentative conclusion is that the rafters must have been supported on purlins running between A-frames with elevated cross-members, and anchored by some unknown means to the masonry of the lateral walls. 409

Significantly, the continuous barrel-vault covering the transept arms is considered an original feature, its installation coinciding with attempts to employ identical means in roofing the nave at other Catalan sites. That the development might have been influenced by a Mozarab presence at Cuxa is far from certain, as it contrasts with contemporary practice in the Caliphate. The internal arrangement of both the mosque at Córdoba and the principal buildings at Madinat al-Zahra was based on a series of narrow aisles spanned by wooden beams supporting the roof: at neither site was vaulting used, although by the turn of the 9th century it had become part of the mason's repertoire in areas of North Africa and the Middle East where timber was scarce. However, masons imported from Al-Andalus are credited

This configuration, where tie-beams are jointed to the wall plates and form the base of an A-frame, is preserved in a number of 11th century roofs; for examples and classification, see Lynn Courtenay & Nat Alcock, 'Romanesque Roofs: the Nave of Jumièges Abbey and the Common Tie-Beam Tradition in Northern Europe', *Medieval Archaeology* [59:1] 2015.

Nicola Coldstream, 'The Architect, History and Architectural History', *Transactions of the Royal Historical Society* [13] 2003 (Sixth Series), pp.219-26; design of the roof structure was probably a collaborative effort between the mastermason and lead carpenter. For one possible configuration see Cadafalch & Gaillard, 1935, fig. p.364.

⁴¹⁰ Below, pp.132-34.

Bloom, 2020: p.57.

with the barrel vaulting of Asturian monuments as early as the reign of Ramires I (842-50), which confirms that the principles involved were not alien to Iberian craftsmen.⁴¹²

The background fabric of the abbey church is typical of 10th century work throughout the Pyrenean interior, comprising rubble walling with the occasional horizon of herringbone masonry (*opus spicatum*) [55]. The masons did, however, have access to a limited amount of spolia, this being reserved for use in the principal apse and arcade piers, and to reinforce the external angles of the envelope [56,57]. There is little evidence that these granite components were reworked, and wedge-shaped voussoirs are notably absent from the arched openings of the building. The range of architectural detailing thus appears to have been dictated by the qualities of available building stone, as isolated examples of arches of the later Islamic style formed of regular voussoirs springing from cut impost blocks have been identified in the region of Narbonne, an area underlain by sedimentary deposits and close to sources of Roman spolia.⁴¹³

The situation at Cuxa provides a thumbnail sketch of the state of the local building industry in the third quarter of the 10th century, but only insofar as it functioned at a well-resourced site with access to the best craftsmen and overseen by a skilled administrator. More pertinent to the present discussion is the impact it might have had on the construction of rural churches of the period: the extent to which the methods employed were at variance with local tradition and thus heralded an era of improved technical ability; the stimulus the project gave to the sponsors of rural churches; to the ancillary trades and the local economy

Marcel Durliat, 1985: pp.332-33. Durliat compares the solutions adopted by late 9th century Asturian masons to counter the thrust of the vault – a bay system, the height of the aisles, and arcading to the lateral walls of the envelope – with those of First Romanesque buildings. Cf. Walker, 2016; p.159.

Josep Puig i Cadafalch, 'La frontière septentrionale de l'art mozarabe', *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* [87:3] 1943. The examples cited are Saint-Nazaire de Roujan, Saint-Georges de Lunas (*Hérault*), and Saint-Jean de Caps, Mailhac (*Aude*); all are unicellular churches with a narrow, rectangular apse.

more generally; and to the creation of a network of professional builders. All were factors with the potential to influence events after the turn of the first millennium, and their significance can only be assessed by shifting attention to less iconic sites.

The periodisation of 10th century church architecture in Roussillon

The disparity between the profiles of arches used in the late 8th century and those of the subsequent period forms the basis of the internal chronology proposed for Pre-Romanesque buildings north of the Pyrenees. In extending his research to the smaller 10th century churches of the region, Ponsich demonstrated that the departure from Islamic practice noted at Saint-Michel de Cuxa was not exceptional, and also that the design of certain formed openings could reasonably be attributed to earlier traditions. Crucial to his analysis was the church of Saint-Michel de Sournia in the Fenouillèdes, a dependency of Cuxa where the phased construction could be related chronologically to the programme at the mother house [70,71].⁴¹⁴ This well-preserved complex incorporates three discrete structures which were the result of successive 10th century campaigns confirming the early use of mortar-bonded masonry, and which tend to substantiate the theory of a distinct stylistic change occurring midway through the century.

Both this church and the neighbouring chapel of Sainte-Félicité were documented as being owned by Cuxa in 985, but the abbey's title to land in the area extended to earlier in the century, and suggests that the buildings were constructed prior to the remodelling of Saint-Germain.⁴¹⁵ The relative chronology of Saint-Michel, which comprises two parallel

MH Base Mérimée PA00104135 (designated 1965)

Appendix L, lines 39-40. Cf Appendix I, lines 49-56; this 958 charter of Lothair confirming Cuxa's possessions details an extensive territory in the Fenouillèdes, but no reference is made to either Saint-Michel or Sainte-Félicité; Ponsich, 1980: pp.175-76; here the first reference to Saint-Michel occurs in 968, and that for Sainte-Félicité is dated 1011.

vessels, is based on the horseshoe arch giving access to the southern nave, this bearing a strong resemblance in both outline and method of construction to those of the arcades at Cuxa, and provisionally dated to the late 960s [72]. ⁴¹⁶ A similar profile is used both for a west doorway and the opening between nave and apse [73]. The scale of the south entrance intimates that masons from Cuxa were engaged in the project, but the poor quality workmanship which emerges in other parts of the structure implies that their participation was limited. There is a noticeable decline in the treatment of formed openings in the eastern extremity of the building, and the pronounced batter applied to the envelope of the southern apse betrays a lack of confidence in the integrity of the fabric, or its ability to withstand the thrust of the cul-de-four vault [74]. Enlarging the complex may have been undertaken with a specific purpose in mind: to cater for the spiritual needs of travellers on the important route linking the coast to the upper reaches of the Aude valley. Their numbers may explain the dimensions of the south doorway, which effectively extended the reach of services held within; this may also have had a bearing on the design of the apse, its horseshoe ground plan possibly being chosen for its superior acoustic qualities.⁴¹⁷

The lack of a masonry bond between the two parallel vessels clearly signals that the northern church was an earlier entity, but the date of its consecration is unknown. However, the tower which abuts the west end of the structure must predate the church, as the two buildings do not share a common wall: if this was coeval with other fortifications in the region, the first phase of the religious complex was probably completed no later than the second quarter of the 10th century.

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Pere Ponsich, 'Les deux églises mozarabes de Sournia (Pyr. Or.)', *Anales y Boletin de los Museos de Arte de Barcelona*, v.4, nos.3&4, 1948, pp.297-311. Ponsich proposed a date in the late 970s for the southern vessel at Sournia, but the precedent could have been set nearer the beginning of the building campaign at Cuxa.

Mirabella Roberti, 1988.

The defining feature of the northern nave is the form of the arches framing the doorways in the envelope, and the passage between nave and apse [75,76]. These are semicircular and slightly stilted, with their points of origin set back beyond the line of the jambs (arc en gouttières). All are true arches, with blocks of similar height arranged radially and the arc completed by a wedge-shaped keystone, an identical procedure being used on both the external and internal faces of the opening. There are signs that individual voussoirs may have been trimmed, but in general the blocks are used 'as found', with tapered mortar joints maintaining the curve of the arc between those of rectangular shape. The masons were aided in the sourcing of suitable material by the tendency of the local granite to form large outcrops and fissure along parallel lines when subjected to the elements. The Roman practice of including a stretcher course above the extrados to protect the joints from weathering was not followed, this distinguishing the structural approach from that found in a number of neighbouring First Romanesque churches. 418 The conspicuous ledge of the doorways is absent in the window embrasures, which were thus constructed in conventional fashion: these are narrow lancets with a pronounced internal splay typical of Pre-Romanesque churches, and whereas the external head is often afforded the same care as the door arches, the masonry bridging the internal opening generally lacks in sophistication [77-80].

Resting the formwork for the head of an opening on projecting jambs had numerous advantages: the timberwork could be less robust, leading to an economy in labour and materials; access to the interior of the building was unencumbered; and, being portable, the template could be reused in other locations.⁴¹⁹ Removal of the temporary support was

¹⁸ Above, pp.37-38.

⁴¹⁹ Mirabella Roberti, 1988. For window openings, ease of access was a lesser consideration and the profile is consequently less commonly found.

presumably facilitated by the insertion of folding wedges under its points of contact with the masonry, these being easily removed when the arch had stabilised. Advancing the reveals in this manner was recognised as a convenient means of supporting the necessary formwork as early as the 4th century, when an identical procedure was used in the serial reproduction of the arches forming the blind arcading on the perimeter walls at San Simpliciano, Milan.⁴²⁰

A later modification of relevence to 10th century practice in Catalonia occurred in the 6th century architecture of Ravenna and its environs, where the semi-circular outline of openings spanned by conventional arches built off projecting reveals was converted to a horseshoe profile by the addition of a mortar fill after the formwork had been dismantled.⁴²¹ A similar method could have been employed when raising arches by means of corbelling, with the masonry at the points of origin – which had no structural function - being raked back to allow space for the timberwork, and reinstated after its removal. This may have been the case at Cuxa, where the removal and re-use of formwork would have significantly reduced the cost of constructing the nave arcades. It would also, however, have affected the organisation of the site by demanding a vertical rather than horizontal approach to raising these sections of the church, a delay in removing the supports of one arcade before its reuse in the other being dictated by the curing time of the mortar.

The northern apse at Sournia is both lower and narrower than the body of the church, and has a trapezoidal ground plan with an axis deviating markedly from that of the nave [70,81]. It is the only part of the building to be vaulted, and a continuous step in the interior masonry on each of the lateral walls confirms that the necessary formwork was supported in

42

Krautheimer, 1979: p.83.

⁴²¹ Mirabella Roberti, 1998.

the manner employed for the doorways. The external span of approximately 3.5m is one of the narrowest in Roussillon, and the vault could have been erected in a single operation: the mortar would thus set at a uniform rate, and any shrinkage would be less liable to cause fissuring. The restricted opening leading to the sanctuary, which could be screened at significant moments of the ritual, is assumed by some scholars as proof that observance of the Hispanic (or Mozarab) rite survived into the 10th century, 422 although a similar ground plan surfaces in Palaeochristian monuments of Rome. 423

The limited height of the apse provides little evidence of the theoretical knowledge possessed by the master mason: in a taller building, the effect of setting the origins of the vault on the outer leaf of the wall would risk the line of thrust not being contained within the masonry, thus rendering the structure unstable [82]. The practical skill of the master-mason is, however, emphasised by the accurate alignment of the lateral walls and the slight taper imparted to their fabric, both features that argue for a proficient use of string line and plumb bob. The masonry throughout the complex is primarily composed of rubble obtained from surface outcrops and watercourses, a higher proportion of interstitial packing being found in the older section of the complex, but more regular material is found in the external angles and eaves coursing of the northern apse [80,83].

A combination of the massing of the northern vessel of Saint-Michel de Sournia, its ground plan and the use of the *arc en gouttières* was considered by Ponsich as diagnostic of

422 Hillgarth, 2002;

Anscari Mundo, 'Les changements liturgiques en Septimanie et en Catalogne pendant la période préroman', *SMC* [2] 1971. Although the Hispanic rite is known to have been observed in the archdiocese of Narbonne following the recapture of the city by the Franks, it had largely died out by the end of the 8th century.

buildings reflecting Visigothic aesthetics and liturgical practice.⁴²⁴ Whilst the sympathetic restoration of Saint-Michel shows these features to advantage, many of the Pre-Romanesque churches of Roussillon have suffered from such neglect or later modification that their original plan and architectural detailing is difficult to ascertain. The overriding impression gained from those where standing fabric does survive is one of variety in conception, with no clear division between those inspired by Visigothic tradition and those where Mozarab forms are dominant.

For example, if attention is initially directed to the ground plan, it emerges that apses of trapezoidal form occur alongside those with a horseshoe profile. In both cases, they are narrower and lower than the nave, with an axis deflected more or less acutely to either north or south. However, the restricted dimensions at Sournia appear to be the exception to the rule: further to the east in the Fenouillèdes, Saint-Félicité de Sournia [84-87] and Saint-Cyprien de Cuchous also have angular sanctuaries only slightly narrower than the nave, as does Saint-Cugat de Caixas in Vallespir [88,89]. The horseshoe footprint is less common, but is preserved at both Saint-Saturnin de Montauriol (*Aspres*) and Saint-Ferréol de la Pava (*Rossilló*) [90]. Unfortunately, the intensive 11th century rebuilding programme in Conflent all but destroyed potential examples within the county, although masonry attributed to the period is occasionally incorporated in later structures. The one possible exception is Saint-Étienne de Pomers, where the semi-circular apse may date to the Pre-Romanesque period, but where the body of the church has been drastically altered. Supporting evidence for this view is questionable, however: as is the case at Sournia, the building forms part of an early

Pierre Ponsich, 'Évolution de l'architecture romane roussillonnaise des origines au XIIIe siècle', *SMC* [6] 1975. Cf. Notice no. PA 00104135 (1965), base Mérimée, Ministère français de la culture: the northern church is explicitly defined as 'Préroman de tradition wisigothique'.

castle complex (first mentioned in 865), and a narrow axial window with an internal splay is preserved in the eastern façade, but details of the fabric which might confirm an early date are largely obscured by render.⁴²⁵

The asymmetry of the ground plans of these 10th century rural churches implies that their builders had a tenuous grasp of elementary geometry: at Saint-Cyprien de Cuchous, for example, the outline of the nave forms a quadrilateral with no right angle intersections, the lateral walls being parallel and those to east and west offset in opposing directions. A more extreme case surfaces at Saint-Cugat de Caixas where the footprint forms a scalene trapezoid, the nave narrowing appreciably from west to east.

The problem with attributing these variations to a lack of theoretical knowledge alone is that they surpass the margin of error to be expected in a building set out by eye, where estimation and an elementary means of measurement would have created a more regular quadrilateral. It is therefore possible that 10th century versions of rural churches were based on the footprint of buildings erected either prior to the Muslim occupation, or during the subsequent period of land clearance and population growth. Irregularities in the initial setting-out had implications for successor buildings, especially with regard to the roofing of the church: in most cases, this was a minor inconvenience, but at both Sainte-Félicité de Sournia and Saint-Cugat de Caixas the deviation of the longitudinal walls required a roof of variable pitch to be constructed, and complicated the process of weatherproofing the

⁴²⁵ Mallet, 2003; pp.181-82.

A lack of parallelism in transverse walls is a common feature of Pre-Romanesque churches; see Alain Guerreau, 'L'analyse des dimensions des édifices médiévaux. Notes de méthode provisoires', *Le renouveau des études romanes en Brionnais-Charolais*, septembre 1998, https://halshs.archives-ouvertes.fr (consulted 16.04.20: no page numbers); 'Vingt et une petites églises romanes du Mâconnais: irrégularités et métrologie', *Actes des congrès de la Société d'archéologie médiévale*, 1-5 octobre 1996, Dijon-Mont Beuvrey-Chenôve-Le Creusot-Montbard, Caen (Société d'archéologie médiévale) 1998, pp.186-210.

building. The ability to establish a right-angle which characterises the northern nave at Saint-Michel de Sournia therefore appears an anomaly, and increases the likelihood this early phase of the complex was also the work of a master-mason dispatched from Cuxa.

The only indication of a growing understanding of statics during the long 10th century lies in the greater scale of the arches separating nave from sanctuary, and in early experiments in covering wider apses with a *cul-de-four* or barrel vault. Triumphal arches of horseshoe profile and erected in similar fashion to those found at Saint-Michel de Cuxa are present at Montauriol and La Pava (*Rosselló*), but there are no extant examples in Roussillon where the origins of the arch project beyond the line of the reveals. Inability to replicate the Umayyad profile reflects the difficulty (or cost) of salvaging suitable components from Roman sites, the cutting and dressing of projecting impost blocks and regular, wedge-shaped voussoirs being beyond the capabilities of masons largely dependent on percussive tools to work granite and metamorphic rock.⁴²⁷

The limited use of vaulting in 10th century churches north of the Pyrenees confirms that wood remained the preferred medium for supporting the roof covering. The art of installing a stone vault is known to have been (re)mastered in Iberia by the mid-9th century, and used to cover the vessels of Asturian churches founded under the auspices of Ramires I (r.842-50).⁴²⁸ The work in León and Galicia relied heavily on reclaimed materials, although quarrying was reintroduced at localities where easily-worked sedimentary deposits were available. The production of sizeable blocks for use as facing material continued a Visigothic

427 Caballero Zoreda & Utrero Agudo, 2005: the techniques necessary to work granite survived in 9th century Galicia and Lusitania.

⁴²⁸ Walker, p.159ff.

preference for ashlar masonry, but the technical skills involved in extracting, cutting and dressing the stone are generally credited to imported craftsmen.⁴²⁹

Access to skilled masons and good quality materials were not advantages shared by Catalan sponsors, who did not contemplate vaulting the nave of the church until late in the 10th century. The first documented case relates to the rebuilding of Sant Esteve de Banyoles (*Gironès*), completed in 974, where the decision to dispense with the use of wood was prompted by the vulnerability of the site, which lay on a route favoured by Moorish raiding parties. There is also circumstantial evidence that intense building activity unaffected by Lombard influences occurred after Al-Mansur's attack on the province in 985: documentation referring to the reconstruction of Sant Cugat des Vallès cites the responsible master-mason by name, and confirms that work was in progress between 1006 and 1012. From the limited archaeological evidence available there is nothing to suggest that this phase of the building bore any of the hallmarks of First Romanesque fabric or decoration, an observation which also holds true for coeval programmes at Sant Pere de les Puelles and the cathedral at Barcelona.

The two examples in Roussillon of barrel vaulting being installed in lesser monuments occur where similar conditions prevailed, both being adjacent to the main pass across the eastern Pyrenees. A degree of controversy attaches to the church of Saint-Martin de Fenollar (*Albères*), a dependency of Sainte-Marie d'Arles-sur-Tech, where a vault with a horseshoe profile was installed over the nave at some time between the late 9th and early 11th centuries

Ibid. This conclusion is based on the sculpted ornament of mid-9th century churches where dressed sedimentary stone is used either at the angles of the building, or in isolated sections of ashlar: the treatment of the walling stone may have been the work of indigenous labour.

Above, p.40n; Carol Heitz, La France Pré-Romane: archéologie et architecture religieuse du Haut Moyen Âge, IV^e siècle – An mille, Paris (Éditions Errance) 1987, p.215.

Carbonell i Esteller, 1987.

[91-95]. The formwork was again supported by the internal leaf of the lateral walls, but both the height of the structure and its overall width were considerably greater than at Sournia. The use of two transverse arches to counter the loading of the vault explains the preference for the later date, the stratagem being thought by some authorities to be exclusive to First Romanesque churches, and therefore unlikely to have been included in the mason's vocabulary prior to its adoption at Saint-Martin du Canigou in the early decades of the 11th century.⁴³²

In all other respects, however, the body of the monument conforms to the established pattern of Pre-Romanesque rural churches, the nave opening into a small, rectangular apse with a narrow axial window which, in common with the others piercing the envelope, has a pronounced internal splay. The triumphal arch is also of horseshoe profile, but differs from those underpinning the nave vault by incorporating chamfered impost blocks at the origins of the intrados. The vaulting to the apse springs from the inner leaf of the lateral walls, although this may be a case where infill was used to complete the arc, and thus provide a continuous field for a suite of frescos added in the 12th century. The fabric comprises rubble walling with a wide range in the dimensions of the material employed, the largest granite blocks being reserved for the external angles of the structure. The upper horizons of the eastern façade of the apse differ in approximating to horizontal coursing, but this may be the result of renovations carried out during re-roofing.

In view of the predominance of Pre-Romanesque features within the church, an argument dating it to the early 11th century based solely on the use of transverse arches

Pierre Ponsich, 'Le Maître de Saint-Martin de Fenollar', SMC [5] 1974.

Mallet, 2003: pp.272ff, Pl. 1-7.

confirms Puig's continuing influence on specialists in Catalan architecture, this being one of his diagnostic markers of the First Romanesque style. However, it also highlights the dangers of privileging theory over practice, of focusing on the role of the architect rather than that of the artisan. Once the principles of arch construction had been absorbed by indigenous masons it can no longer be assumed that its use to underpin a barrel-vault was necessarily the result of external factors. Taken in conjunction with experiments in vaulting wider compartments of the church at Cuxa and Banyoles, it might more convincingly be interpreted as evidence of the ability of local craftsmen to find their own solutions to new challenges.

Similar ambiguity attaches to the small aisled basilica of Sainte-Marie de la Cluse Haute, which lies in the hills to the east of Saint-Martin de Fenollar, this presenting an amalgam of Pre-Romanesque and Romanesque features which have also resulted in its being tentatively assigned a date in the first decade of the 11th century [96-102]. As will be seen to be the case at Canigou, the barrel-vaulted central vessel and collaterals are surmounted by a common roof on the 'Poitevin' model, 434 but at Sainte-Marie these lead onto three adjoining semi-circular chapels set within square blocks of masonry whose external walls are linked to form a 'flat' eastern façade [97]. A rise in floor level delineates this section of the building, and low doorways between the central and lateral apses, similar to those found at Cuxa and Saint-Génis des Fontaines, enable it to function as a transept, albeit one which does not project beyond the line of the collaterals [100].

That the architecture of the church falls between two styles is underscored by the varying profiles of the formed openings used in its construction. The majority have the semi-circular head which became the standard pattern in 11th century Catalonia, but the extended

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Francastel, 1970: pp.99-101; below, pp.181-82.

arc of that giving access to the central apse, and the internal masonry of one of the lancets of the south collateral, reflect the horseshoe outline found at its near neighbour [98,101]. The western end of the nave arcades also have overtones of archaic practice, the origins of their arches being set beyond the reveals of the bridged openings in a scaled-up version of the *arc en gouttières* used in the doorways of the oldest – early 10th century - phase of Saint-Michael de Sournia [98,99].

Examination of the fabric exposes another incongruity, the random nature of the masonry of the eastern façade contrasting with the near-horizontal coursing found in the body of the church. As the majority of the stone employed derives from the fissile schists forming the bulk of the Albères (the eastward extension of the Pyrenean range), the lack of triage applied to the material used in erecting the chevet suggests that this phase of construction was not governed by First Romanesque aesthetics. Dressed granite is occasionally included in the fabric, but most prominently in forming the twinned opening in the upper part of the western elevation [102]. The weathered appearance of the quoins, voussoirs and central column of this feature suggest that stone was salvaged from the Roman fortifications guarding the gorge followed by the *Via Domitia* in its passage across the mountains.⁴³⁵ The trapezoidal capital which bridges the thickness of the wall cannot be attributed to the same source, however, the stone being of different composition, and the visible external face being carved with interlace of Carolingian inspiration.⁴³⁶

A local construction sector wedded to traditional methods but experimenting with a wider application of stone vaulting therefore appears to have developed in the decades

The toponym 'La Cluse' derives from the Latin for a closed or inaccessible place, rather than the French 'écluse', meaning a lock or temporary barrier in a watercourse.

MH. Base Mérimée, PA00103993

before the turn of the first millennium, circumstances which have engendered an alternative narrative of the period based on continuity rather than change. According to this perspective, the presence locally of north Italian masons in the 1020s and 1030s merely added fresh impetus to a process already underway, a view which inevitably diminishes the significance of the vault and transverse arches as markers of imported practice. The limiting factors to its adoption were thus related to available resources rather than a lack of technical expertise, and explain the continuing use of wooden roofing in a considerable number of rural churches throughout the early 11th century.⁴³⁷

10th century masonry

Examination of the plain walling of monuments built in the 10th century reveals that local masons increasingly viewed mortar as having structural properties. Saint-Michel de Sournia represents an early stage where the fabric was raised in the manner of dry-stone walling, with interstitial packing maximising the surface contact between components [83]. The stability of the wall relied on the force of gravity and the high compressive strength of the stone rather than a mechanical bond between its components. The major weakness of unbonded masonry was a susceptibility to water penetration, and the stresses imposed by the freezing and expansion of pockets of moisture trapped within the core. Prior to the introduction of lime mortar, and in vernacular architecture until the end of the 19th century, and in vernacular architecture until the end of the 19th century, leading to a rapid deterioration of the structure. The increased resistance of mortar to

⁴³⁷ Ponsich, 1973.

Jacques Heyman, *The Stone Skeleton: Structural Engineering of Masonry Architecture,* Cambridge (Cambridge University Press) 1995, pp.12-15.

⁴³⁹ Rémy, 2009.

weathering was thus its most prized attribute, and its efficacy as a bonding agent of secondary importance.

The problem facing the masons at Cuxa was more acute, given the nature of the blocks obtained from the bed of the Llitera or the adjacent Miocene agglomerates, which are more or less rounded and do not interlock in the manner of the angular granite native to the Fenouillèdes [55]. The bond between mortar and stone was weak, the impermeable granite, gneiss and schist underlying the Pyrenees lacking the 'grab' of unglazed brick or sedimentary rock. In the absence of packing material, the mortar formed a significant proportion of the fabric, and its properties in both the cured and uncured state were key to the structural integrity of the masonry. Its main function as bedding was to avoid irregularities in the stone generating potentially destructive spot loading, but as the fill in vertical joints it also had to have the shear strength to resist longitudinal buckling of the wall. Although the initial set of the mortar was relatively rapid, it nevertheless retained sufficient plasticity to compensate for settlement.⁴⁴⁰ The more long-term curing process, which required exposure to the atmosphere, drew moisture from the core of the wall, thus promoting mineral precipitation to repair fissures caused by movement or shrinkage.⁴⁴¹

For the main body of the fabric at Cuxa the masons preferred the rubble walling traditionally used before the turn of the first millennium, but sections of both the external and internal faces show blocks laid obliquely. The comparison frequently made with the *opus spicatum* of Roman masons is misleading, as this was used as a surface facing to a concrete core and had little structural importance [103]. In the double-skinned, rubble filled walls of

440 For properties of medieval mortars, see Fitchen, 1961: *Appendix* G, pp.262-65.

⁴⁴¹ Claire Davies, 'Matching Mortars for Pointing', Historic Churches, Salisbury (Cathedral Communications Ltd.) 2012.

Barral i Altet, 1981: p.59.

10th century buildings this arrangement of the blocks had implications for both the stability of the fabric and ease of construction, especially when rounded boulders were substituted for bricks. Far from being a means of strengthening the wall as some authorities maintain, ⁴⁸⁴ the herringbone arrangement is inherently less stable than that achieved when stone is laid with an overlapping bond. It also demands more skill on the part of the mason, the reduced bearing of the blocks increasing their tendency to become displaced when subjected to loading. The abbreviated nature of the work at Cuxa recurs at other churches in the neighbourhood, such as Saint-Vincent d'Eus, and is taken as evidence of the retention of sections of the earlier, 10th walling in subsequent rebuilding programmes [104].⁴⁴² This cannot be taken as a hard and fast rule, however, as the pattern was revived in 13th century structures, a notable example in Conflent being the town walls of Vinça [105].

A comparison with the two near-contemporary abbey churches of Saint-André de Sorède and Saint-Génis des Fontaines (*Albères*) shows the fabric at Cuxa to lack the sophistication and aesthetic appeal achieved by the consistent use of herring-bone masonry. The masons at both these sites were aided by a ready supply of spolia, enabling dressed stone to be set at the angles of the building to frame lifts of oblique blocks and, at Saint-André, to improve the bond by the regular inclusion of stretcher courses on the Roman pattern [106,107]. In contrast, spolia is reserved for the imposing façade of Sainte-Marie d'Arles: here a surviving section of the 10th century envelope comprises herring-bone masonry unrelieved by horizontal reinforcement [108]. The referencing of an archaic tradition at Sainte-Marie is accentuated by its having a western orientation, and its later being converted into a 'double-

ended' church by the inclusion of three subsidiary apses in the thickness of the eastern wall.⁴⁴³

No major significance was attached by Ponsich to the use of spolia in the structure at Cuxa, or the alternating pattern of one 'header' and two 'stretchers' at the corners of the envelope. The initial setting-out of the building necessarily focused on its external angles and the establishment of interim datum heights for the intervening rubble walling: the arrangement may therefore have been determined by the size of the available material and the optimum height of a single 'lift' of masonry, this being governed by the time taken for the mortar to set sufficiently before being subjected to further loading. The dimensions of reclaimed blocks are sometimes impressive, especially in the lower sections of the central apse and arcade, and as Roman structures were a rarity in Conflent the stone must have been sourced at distance from the site. The stability of the masonry at these points was critical, and presumably governed the choice of the best material: elsewhere there is more variation in size and finish, with dressed blocks interspersed with untreated stone.

The fabric of both the 10th and 11th centuries was typically flush finished both internally and externally, with only the central section of the block emerging from the background mortar, and the resulting surfaces being coated with limewash. Secondary treatments were frequently used to give the impression of ashlar, most commonly by means of incised tool marks or raised 'ribbon' jointing, the latter being embellished with trowel-cut central grooves in First Romanesque buildings.⁴⁴⁴ It is difficult to be certain that this was the work of the original masons rather than the product of later repointing, but at numerous sites

⁴⁴³ Mallet, 2003; pp.289-91.

Pere Ponsich, 'L'art de bâtir en Roussillon et en Cerdagne du XI^e au XIII^e siècle', *SMC* [26] 1995, pp.35-55. Cf. Bénédicte Palazzo-Bertholon, 'Traitement et apparences des surfaces murales autour de l'an mil. Joints, enduits et polychromies', pp.205-20 in Vergnolle & Bully, 2012.

in Conflent – for example, at Sainte-Marie de Corneilla, Saint-Jacques de Nyer and Saint-Marie de Riquer – it is considered to have survived from the initial building campaign.

The legacy of 10th century practice

The diversity in the design and workmanship of the 10th century religious buildings considered here admits to no compelling explanation of the origins of the individuals who were responsible for their construction, or evidence of a direct transmission of skills through the intermediary of a monastic atelier. It is particularly striking that the practical application of geometry exhibited at Benedictine sites does not appear to have been absorbed by the masons responsible for setting out the ground plan of rural churches. Variations in design also argue against there being a common conception amongst community sponsors of an ideal setting for the ritual prescribed by the ecclesiastical authorities. This uncertainty was seemingly shared by the craft fraternity, which imposed no order on the projects on which its members were engaged. The idea of an itinerant master-mason, or team of construction workers, being employed at a succession of sites within a region is probably inaccurate, and there is certainly nothing to support this being the case in Roussillon.⁴⁴⁵

10th century sites were, however, especially significant in acting as a proving-ground for refining the mixture of lime and coarse aggregate to produce the optimum mortar for use with impermeable local stone, which stood later masons in good stead when *petit appareil* devoid of interstitial packing replaced rubble walling. The acquisition of empirical evidence in this field may have been a determining factor in the experimentation with continuous barrel-vaults which pre-dated the arrival in Catalonia of Lombard masons.

A similar view has been taken in the case of Asturian churches; see Walker, 2016: p.23.

Although not universally applied, certain quirks of design and detailing appear superficially to support the proposition that Mozarab aesthetics became common currency in Roussillon over the course of the 10th century. When considering the rural churches, the restricted access between nave and apse may indicate a continuing (or revived) adherence to the Hispanic liturgy in communities with a high proportion of Iberian immigrants, although this appears improbable given the dominance of the Gallo-Roman rite espoused by both the ecclesiastical authorities and the Benedictine movement. Surviving examples of horseshoe arches may appear crude, but this does not preclude their having been erected by Mozarab builders, as all have been stripped of the surface treatments typically used in Al-Andalus to disguise deficiencies in material or technique.⁴⁴⁶ Nevertheless, a more compelling explanation should perhaps be sought in the persistence of customary building practices which were only marginally affected by the presence of Iberian refugees.⁴⁴⁷

The surge in activity at Benedictine sites inevitably contributed to the expansion of an infrastructure capable of sourcing, transporting and stockpiling large quantities of stone, quick lime, aggregate and timber. The emphasis on ancillary trades was crucial to the sponsors of rural churches, both easing access to the materials required for their own projects and providing secure employment for villagers during the winter months. Whilst it may not have led to the rise of an identifiable class of professional builders, a greater proportion of the indigenous population had gained some experience of the trade at the end of the 10th century than was the case at its beginning. Irrespective of the role played by imported

Bloom, 2020: numerous examples are given of the use of stucco to replicate cut and carved stone, a particular application being to disguise the irregular material used in forming arched openings.
 Ponsich, 1973.

master-masons in introducing First Romanesque practice to Catalonia, it was the tapping of this pool of semi-skilled labour that enabled its rapid dissemination.

Moreover, the close liaison between count and chapter at the major 10th century monastic sites induced a greater appreciation amongst the aristocracy of the crafts, logistics and financial management involved in large-scale building programmes. Whilst the primary role of the comital house of Cerdagne-Conflent during the 10th century was undoubtedly that of benefactor, the project at Cuxa overseen by Garin could not have been successfully achieved without an understanding of the building trades, and the ability to communicate with the artisans in his employ. In an era when the few manuals dealing with construction were written in Latin, and when visual representation of buildings was in its infancy, this latter necessity must have brought about changes in the vernacular, and opened the way for information relating to techniques and decorative norms to be transmitted by word of mouth.⁴⁴⁸

Although this may seem a minor point, it goes some way to undermining the case for the spread of theoretical *savoir-faire* being based solely on practical instruction, and introduces a weak link in the presumed chain of influence stretching from monastic atelier to rural church. To judge from the irregular ground plans of Pre-Romanesque monuments in Roussillon, verbal means of circulating concepts and techniques appear to have been underdeveloped at the time of their construction. They assume greater significance in the First Romanesque period, however, when basic geometrical principles were consistently applied to the planning and construction of buildings sponsored by unlettered individuals.

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Moreover, when dealing specifically with Conflent, the number and distribution of early 11th century projects precludes their being exclusively the work of masons trained in the ateliers of Cuxa or Canigou. The acquisition of technical expertise must by this period have been assured by internal lines of communication within the fraternity, rather than through a monastic intermediary; similarly, the aesthetic demands of patrons must have been expressed in the vernacular. Once established, a descriptive vocabulary relating to the building trades thus enabled aspects of both system and style to be freely discussed beyond the confines of court or cloister.

Chapter 6

Agents for change? Aristocratic sponsorship of First Romanesque buildings.

The abdication of Oliba Cabreta in 988 ushered in a new generation of the comital house dedicated to consolidating the links between the civil and religious authorities within its extensive territories. With the exception of Berenger, who died in 1003, all of Oliba Cabreta's progeny were at the height of their powers during the first half of the 11th century, and active – to a greater or lesser degree – in promoting building programmes at a number of the grander monastic sites most closely identified with the introduction of the First Romanesque style.

However, attributing the shift in architectural perspective to the influence of named individuals risks distorting the context in which the change occurred. In particular, it undervalues the knowledge of north Italian building practice held in common by the wider Catalan aristocracy and members of their entourage, a corollary of the closer links forged with Rome in the preceding decades. The initiative organised by Sunifred in 951 saw a number of local abbots travel to the Holy See to seek privileges or protection for their monasteries, the prosecution of Cuxa's case being delegated to Sunyer, a senior member of the community. A joint venture with similar aims was mounted in 979 by counts Miró of Barcelona and Roger of Carcassonne, together with the abbots of foundations enjoying their patronage. Given that Oliba Cabreta also attended the papal court in 968, the ruling elite of the region had become familiar with the religious architecture of northern Italy before the

Xavier Barral i Altet, 'Culture visuelle et reflection architecturale au début du XI^e siècle: les voyages de l'abbéévêque Oliba. 1ère partie: Les premiers voyages, avant l'itinéraire vers Rome', *SMC* [40] 2009, pp.177-86.

⁴⁵⁰ *Ibid.* The monasteries concerned were Sant Pere de Rodes and Saint-Hilaire de Carcassonne. Miró made a further visit to Rome in 983, when he attended a council called by Otto II.

turn of the first millennium, and had the potential to inspire similar projects in Catalonia. Significantly, the construction of Saint-Michel de Cuxa was initiated almost immediately after the visit of Sunifred's delegation to Rome, and Oliba Cabreta's later re-design of Santa Maria de Ripoll may have been influenced by his personal exposure to Roman prototypes.⁴⁵¹

An inter-generational link between the patrons of 10th century building projects and their successors was assured by Garin's enduring presence at Cuxa, where he was still active into the 990s.⁴⁵² The corpus of architectural knowledge acquired at Cluny, at the Languedocian sites with which he was later associated, and during his extensive travels have been cited in respect of Saint-Michel, but also had a bearing on later developments. He is known to have been a formative influence during the early adulthood of abbot Oliba, and may have acted in an advisory capacity to his siblings, especially with regard to the design, site administration and financing of their building projects. Furthermore, time spent in Venice, and his hosting at Cuxa of religious exiles from the city,⁴⁵³ increases the likelihood that he was aware of First Romanesque aesthetics and constructional techniques as they were first pioneered in northern Italy.

The value of this legacy naturally decreased over the course of the 11th century, and later refinements to the style must have been introduced to the architectural vocabulary of the comital houses by other means. A continuing political orientation towards Rome was one

Elne.

having been issued as the result of a dispute over the simoniac appointment of a son of the count of Roussillon as bishop of

Ponsich, 1951; Oliba Cabreta visited Rome in 968 to petition for the lifting of a decree of excommunication, this

Ponsich, 1970.

Ponsich, 1989. Pierre d'Orseolo, erstwhile Doge of Venice, was brought to Cuxa by Garin and there pursued an eremitic life in atonement for the bloodshed which accompanied his political rise. He was accompanied by Romuald (canonised 1582), who returned to Italy on being appointed abbot of Sant'Apollinare in Classe, Ravenna. His reforming mission there failed, but enjoyed more success during decades of travel around Italy which culminated in the foundation of the (ascetic) Camaldolese branch of the Benedictine Order. The triumvirate of Garin, Romuald and Pierre d'Orseolo played a key role in Oliba's spiritual development, and was ultimately responsible for his entering the Benedictine Order. A similar influence is credited for his father's decision to retire to Monte Cassino.

avenue giving the ruling elite access to new concepts and models, but not the theoretical and practical skills required for their emulation. The prospect that the technical deficit was bridged by recruiting experienced master-masons from abroad lies at the heart of the *comacini* debate, and thus requires the major 11th century monuments sponsored by the comital house of Cerdagne-Conflent to be assessed as possible conduits for the transmission of First Romanesque aesthetics and building practice.

The first step: Guifred II and Saint-Martin du Canigou

Rather than directing his energies to supporting an existing institution, Oliba Cabreta's successor as count of Cerdagne-Conflent, Guifred II, elected to build a new monastery, Saint-Martin du Canigou. It is in the two superimposed churches of this complex that a combination of First Romanesque features — specifically, Lombard decoration and barrel vaulting reinforced by transverse arches — first appear north of the Pyrenees, thus providing a benchmark for later developments in Conflent. However, the architectural detailing of the two levels suggests that it was the work of more than one master-mason, and that inspiration for the earliest work owed little to the aesthetics or constructional methods of the new style. 454

The transfer to the monastery by Guifred of allodial land at Vernet-les-Bains, Millas and Llupia in 1005 has been regarded as marking the start of the project, but more circumstantial evidence suggests that a community was already established at the site in the last decade of the 10th century, and that resources for a new building were committed as early as 1000. Further donations accompanied the consecration of a partially accomplished complex in 1009 and indicate that work was continuing at the site, the final

⁴⁵⁵ *Marca* cols.1019, 1020, 1022, 1023; *Appendices* L, M.

⁴⁵⁴ Below, p.172ff.

For the earliest documentary evidence of land transfer, *CC*, entry 648, p.509 *Marca* cols.961, 964.

completion of the abbey church being celebrated in a second consecration charter of 1026.⁴⁵⁷ Guifred retired to Saint-Martin in 1035, when his residual property was assigned to the monastery, and died there in 1049.⁴⁵⁸ The documentary evidence therefore accords with the view that the construction of the abbey was a phased project, with First Romanesque aesthetics and building methods only being applied in the later stages of the work. This point is of crucial importance in tracing the spread of the style in Conflent and establishing a relative chronology of neighbouring rural churches.

The 1009 consecration document is unusual in crediting the construction of the church to an individual other than the principal benefactor, this being one Sclua, described as a monk but with no reference being made to the community from which he was recruited. It has been inferred that this was Cuxa, and coincided with the period when Garin was still alive: he has been identified as of Catalan heritage, his family owning land at Llupia and profiting from the protection of the comital house of Roussillon which, during the life of Sunifred, maintained cordial relations with their cousins in Cerdagne-Conflent. Cuxa in its late 10th century ascendency would therefore be a natural choice for an individual of his social standing wishing to pursue a monastic career. Unfortunately, details of his technical competences are lacking, and his function at Saint-Martin might well have been that of site manager rather than architect. The ambiguity of his role is not resolved by his being elected abbot in 1014: whilst this confirms his status within the community, and perhaps

⁴⁵⁷ Mallet, 2003: p.216.

For the funerary notice later circulated, *Marca* col.1094 (dated 1050); Jacques Stiennon, 'Routes et courants de culture. Le rouleau mortuaire de Guifred, comte de Cerdagne, moine de Saint-Martin du Canigou (†1049), *Annales du Midi* [76] 1964, pp.305-14.

Appendix O, line 6.

For this interpretation: Puig, 1909-18: v2, p.67.

sagnes, 1983: pp.192-93.

recognises his organisational skills, it sheds no light on his involvement in the later phase(s) of the building programme.

Sclua's elevation to the abbacy apparently coincided with a period when work on Saint-Martin may have been temporarily suspended, and marking the point when responsibility for the project potentially passed from the hands of one master-mason to another. The possibility that the first was an artisan familiar with the building practices of the Ottonian empire and the second recruited from northern Italy links the event to the period when Guifred's brother, Oliba, became actively involved in renovating the religious estate which fell within the remit of his various offices.

It is also important to stress the indirect effects that Guifred's commitment to Saint-Martin had on later church-building in Cerdagne-Conflent. On a positive note, the scale of the project would have demanded the engagement and possible re-skilling of local labour, and revitalised an infrastructure which appears to have been little used since work ended at Saint-Michel de Cuxa. On the other hand, it had a deleterious effect on the asset base of the comital house, the reduced revenues of his successor counts limiting future sponsorship of religious foundations. The situation was exacerbated by the financial inducement required to have his namesake, a son by his second marriage, installed as archbishop of Narbonne in 1019.⁴⁶² The absence of real property prompted similar provision to be made for the other male issue of the union, all being placed in prominent positions in the ecclesiastical hierarchy [17]. Thus, in the second half of the 11th century, the three bishoprics with jurisdiction over the territories of Cerdagne-Conflent – Elne, Girona and Urgell – were held simultaneously by

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Vic & Vaisette, 1993; v2A, p.149. Cf. Lewis, 1965; pp.322, 385ff. The office was purchased from the viscount of Narbonne for 100.000 *solidi* in 1019, when Guifred was ten years old. Despite periods of excommunication, he remained in post for 63 years, and was instrumental in extending the family's influence in Languedoc.

count Guifred's descendants. Circumstances dictated the role played by such appointees in the architectural field: there is no evidence for work being carried out at either Urgell or Girona during this period, and the confused chronology of Elne makes it impossible to judge the impact of Guifred's son, Berenguer, on the construction of the cathedral, his tenure perhaps coinciding with one of the dormant phases of the programme. It is possible that their careers had an impact on the founding of rural churches, but the parish system was well-established by this date and not expanded to cater for demographic change until after their terms of office.

Oliba, abbot of Ripoll and Cuxa, bishop of Vic

The association of another of Guifred's siblings with religious foundations in Cerdagne-Conflent is more revealing of the monastic life of the province and internal divisions within the comital house than with its architectural history. Bernard Taillefer, count of Besalú, 464 pursued a parallel policy to his brother by founding a new monastery, Saint-Paul de Fenollet, in the valley of the Agly in ca.1000, but from the outset entrusted its oversight to Saint-Michel de Cuxa. However, he also campaigned for the dissolution of Sant Joan de les Abadesses, citing the immorality of the community then presided over by his half-sister, Ingilberga. An ulterior motive was to establish a new diocese centred on Besalù to cover his territory south of the Pyrenees, and install one of his sons as bishop. His requests were

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Mallet, 2001: p.107. Berenguer was the incumbent between 1032 and 1053. The cathedral may have been initiated as early as the 1020s, but financial records suggest that the bulk of the work was undertaken after 1042. Architectural details confirm that the project was interrupted at least once, and the consecration charter of 1069 cannot reliably be taken to mark the completion of the building.

Sagnes, 1983: p.193ff. Bernard excercised subordinate control over territories annexed by his father, which included the Ripollès, Fenouillèdes, Peyrepertuses and Donezan (but not Capcir). His mother Ermengarde retained Vallespir and the area of Rossilló around Castelnou until her death in 996, when this was also included in Barnard's remit. See also Ponsich, 1951: it is suggested that Ermengarde was a member of the comital house of Rossilló, and that Castelnou formed part of her dowry when she married Oliba Cabreta.

⁴⁶⁵ Mundo, 1963; Ponsich, *CR*, entry 642, p.504.

www.sapiens.cat/13400 (consulted 19.07.21: author unknown; no page numbers)

granted by Benedict VIII in 1016, when Bernard and a large number of Catalan notables visited Rome, but the bishopric was suppressed on his death in 1020, and episcopal authority reverted to Girona.⁴⁶⁷

The influence of the third of Sunifred's nephews, Oliba, on the religious and political life of Catalonia cannot be overstated, and has left a lasting legacy in the religious architecture of the province. In 1002, he renounced his secular position as count of Berga, which he had held since 988, to become a monk at Ripoll, and was elected abbot both there and at Cuxa in 1008. The earliest preoccupations of his abbacy were directed towards defending the rights and property of the monasteries under his control, which culminated in a first visit to Rome in 1011 to procure Papal support for the restitution of lands annexed by local aristocrats. A further excursion to the Holy See followed in 1016, when his diplomacy was instrumental in achieving the aims of his brother, Bernard. It is assumed that this second trip extended his knowledge of north Italian architectural trends, and possibly brought him into personal contact with craftsmen willing and able to oversee their application in Catalonia.

Oliba's concern for the rule of law, initially restricted to brokering peace between rival factions within the ruling classes, eventually addressed the concerns of the population as a whole. His installation as bishop of Vic in 1018 enabled the reforms applied to monastic life

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John Man, *Atlas de l'an mil*, Paris (Flammarion/Éditions Autrement) 2000, p. 104, the bishopric was only operative between 1017 and the death of Bernard in 1020. Cf. Sagnes, 1983: p.195.

Eduard Junyent i Subirà, *Diplomatari i escrits literari de l'abat-bisbe Oliba*, Barcelona (Institut d'Estudis Catalans) 1992, p.49.

Eduard Junyent i Subirà, *Commemoració mil.lenària del naixement de l'abat-bisbe Oliba*, Montserrat (Impremta de Montserrat) 1971: pp.16-17. He was accompanied by his brothers Bernard Taillefer and Guifred.

⁴⁷⁰ Ibid. p.8. Circumstances suggest that the trip was not only connected with Bernard Taillefer's attempt to establish a diocese covering Besalú, but with Oliba's future appointment as bishop of Vic. By 1016 the death of the incumbent, Borrell (†1017), was presumably accepted as imminent, and the presence of two senior churchmen from Vic in the party reinforces the view that Oliba was being considered as his successor.

⁴⁷¹ *Ibid.* pp.16-17. Junyent does not rule out the possibility of further visits to Rome.

 a concentration on discipline, liturgy and learning – to be pursued within the diocese, and promoted beyond the confines of Catalonia. Adherence to the principles of the Peace of God movement, for example, was reflected in councils held at Elne in 1022, and Toulouges in 1027, where limited proposals were made to protect churches and churchmen.⁴⁷² These were amplified in the early 1030s to demand a cessation of violence during a fixed part of each week and during Church festivals, and respect for the possessions of the labouring classes.473

Oliba's attempts to re-establish the moral authority of the Church had parallels in the architectural field, where he was directly involved in enhancing the status of the buildings associated with his various offices. His work at Ripoll, Cuxa and Vic merits his being numbered amongst the great 'builder-bishops' of the period, but his activities extended to encouraging the efforts of his peers, both lay and monastic, to renew the religious infrastructure of the province.474

As in the case of Sclua, there is little in the background of Oliba to indicate that he was well-versed in the art of building itself, there being few opportunities in the final decades of the 10th century to study the process at first hand. The last Pre-Romanesque project of note within the territory administered by the comital house of Cerdagne-Conflent - the rebuilding of Santa Maria de Ripoll – was completed during Oliba's infancy, and was followed by an apparent hiatus in construction activity. The grander foundations must nevertheless

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Junyent, 1971: p.14.

Junyent, 1992: p.183. The Council of Vic was held in 1033. Later councils reinforced the sanctity of the ground adjacent to the church – the cellera (Cat. sagrera) – which developed as a place of refuge during the 10th century, a stratagem designed to counter baronial appropriation of the goods and chattels of peasant farmers; Aymat Catafau, 1998: pp.19-25.

Junyent, 1971: p.8: promotion of church building throughout Osona accompanied strengthening or re-establishing border castles as part of a policy to encourage resettlement of a region devastated by Muslim raids during the later 10th century.

have retained a body of craftsmen to ensure the maintenance of structures within the cloister and throughout their estates. Whilst undoubtedly a reservoir of traditional expertise and capable of furnishing key workers for employment at adjacent sites, such ateliers were unlikely to provide architects versed in First Romanesque techniques, at least insofar as they were applied at high-status sites in early 11th century Catalonia. A possible variant of this narrative concerns the putative presence of Oliba at Saint-Martin du Canigou during its construction, where he may temporarily have assumed the abbacy prior to Sclua's appointment.⁴⁷⁵ If this were the case, his functions would have involved regular contact with the master-mason(s) engaged in the first phase of the building, and granted him an insight into the site organisation of a major project.

The absence of compelling evidence of Oliba's technical capabilities strengthens the case for the design and execution of his building works being credited to craftsmen recruited from outside the region. A distinction must, however, be drawn between these two fields of expertise, as decisions involving the scale of the buildings, the hierarchy and disposition of their component parts, and the organisation of internal space implied no familiarity with the arcana of the master-mason's profession. The translation of the overall form of a structure from one region to another would have presented few problems, even if it is assumed that the art of producing working drawings of use to the practical craftsman – sections and elevations - had yet to be developed. It would, for example, have been well within Oliba's

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Ponsich, 1989. Oliba may temporarily have fulfilled the role of abbot at Saint-Martin before Sclua's appointment,
 and thus been in regular contact with practitioners of First Romanesque techniques from an early date.
 Junyent, 1971: p.17.

John Harvey, *The Master Builders. Architecture in the Middle Ages*, London (Thames & Hudson) 1971, pp.33-35. The earliest medieval aids to design are seen as profiles derived from simple geometric principles traced directly onto the ground, and thus destroyed as work progressed. A similar system was later used to create accurate line drawings of architectural detailing on plaster or stone slabs, some of which survive. Small-scale drawings on parchment of the ground plan of a specific building are known from as early as the ca.820 design of Saint Gall, but portable templates for components only appear in the 13th century. Cf. Arnold Pacey, *Medieval Architectural Drawing*, Stroud (Tempus) 2007, pp.6-12; Neil Stratford, 'Le problème des cahiers de modèles à l'époque romane', *SMC* (37) 2006, pp.7-20.

capabilities, or those of his entourage, to record its ground-level dimensions and estimate the relative heights and volumes of its component parts. Equally, the ability of medieval man to process visual stimuli cannot be underestimated: it was surely adequate to the task of retaining an image of the structural features, fabric and decoration of a monument built to impress.

Such observations are not pertinent to all the First Romanesque buildings erected or modified under Oliba's direct or indirect influence, these comprising the abbey churches of Ripoll and Cuxa, those of Sant Vicenç de Cardona and Sant Pere de Casserres founded by members of the vicomital Bremond family in Ausona, and the cathedrals of Vic and Girona. They do, however, have a bearing on the first two examples: the reconfiguration of Santa Maria de Ripoll has been assumed to derive from the ground plan of Old Saint Peter's in Rome, which introduced the projecting transept to Carolingian and later architecture, ⁴⁷⁸ and the western rotunda constructed at Cuxa from that of the Church of the Nativity in Bethlehem. In the latter case, there is no suggestion that Oliba had personal experience of the building, but relied on descriptions of the monument known to have circulated in western Europe during the medieval period. ⁴⁷⁹

Precedents for Sant Vicenç and the two cathedral churches are more difficult to isolate, and those suggested lie at a distance from the established route between Catalonia and the Holy See.⁴⁸⁰ These are also the three sites associated with Oliba where the master-

⁴⁸⁰ Fernie, 2000.

Conant, 1978, p. 116; Junyent, 1971: pp.26-27. The context for the use of St. Peter's and other Roman churches as models for later monuments is given in Richard Krautheimer, 'The Carolingian Revival of Early Christian Architecture', *The Art Bulletin* [24:1] 1942, pp. 1-38. Cf. Watkin, 1986, p.91.

Christian Sapin, 'L'origine des rotondes mariales du IXe-XIe siècle et le cas de Saint-Germain d'Auxerre', pp.295-312 in logna-Prat et al. [Eds], Marie. Le culte de la vierge dans la société médiévale, Paris (Beauchesne) 1996. For earlier examples: Richard Krautheimer, 1942, pp.1-38; also Early Christian and Byzantine Architecture, New Haven & London (Yale University Press) 1986, pp.78-87, 174-77. Cf. Erlande-Brandenbourg, 1999, pp.106-7; Shelby, 1964, pp.387-403.

mason's understanding of statics far outweighed that displayed by his indigenous contemporaries, and thus where the case for his being of foreign extraction is most compelling. On the other hand, the expertise applied to designing the structural skeleton of Sant Vicenç emerges inconsistently in its fabric, with evidence of a sophisticated treatment of stone being restricted to the interior of the apse and the crypt. The building thus highlights the potential for a divergence between 'system' and 'style', where the cognitive processes involved in planning the building did not entail an overall improvement in the practical skills of the workforce. This is a theme which recurs when dealing with the less iconic sites of Conflent, where similar reasoning can be attributed to indigenous masons, albeit to a more limited extent.

An 'Oliban' style? Direct and indirect involvement at major Catalan sites

Santa Maria de Ripoll exemplifies the scale of the work undertaken by Oliba, much of the abbey church constructed during the reign of his father, Oliba Cabreta, being replaced in the period between ca.1020 and 1032.⁴⁸¹ The degree to which elements of the earlier building were retained in the new structure is unclear: both comprised a nave with twinned side aisles, all presumed to have been vaulted, ⁴⁸² but an increase in the number of altars from five to seven suggests that the east end of the church was extensively modified [109-114].⁴⁸³

This was third incarnation of the church founded by Guifred le Velu, and completed in 888; a first replacement was undertaken by Miró II (consecrated 935), and a second carried out by Oliba Cabreta (consecrated 977). *Marca* cols.917-19. Cf. Immaculada Lorés i Otzet, 1999: the 977 abbey church introduced the central vessel with twinned flanking aisles, but without the projecting transept of St.Peters'. The design has been credited to its abbot, Arnulf (†970), one of the group

of Catalan notables who visited Rome in 951.

Puig i Cadafalch, 1909-18: v2, pp.161-62. The lack of transverse arches distances Santa Maria from the direct evolutionary line of early 11th century architectural practice outlined by Puig, and detailed in his analysis of Casserres and Cardona.

Evidence of a transept and/or projecting apses at the east end of the earlier church has not been found, leading Eduard Junyent to suggest a western orientation for the building: *CR* [10] p.220ff. The late 19th century 'restoration' of Santa Maria by Elies Rogent does not accurately reflect Oliba's original design: the configuration of the aisle arcades and nave vaulting has been questioned, the crossing dome is an invention of the architect, and only the base of the southern tower remains unaltered. For a detailed discussion, Puig i Cadafalch, 1907-17: v2, p. 161; *CR* [10] pp.268-72.

Abbot Oliba is therefore credited with overseeing the construction of the strongly projecting transept, where six apsidal chapels complement that of the principal sanctuary, and a modification of the western façade, photographs taken prior to its 19th century restoration indicating that the southern flanking tower is a preserved feature of the First Romanesque building.⁴⁸⁴

An enduring respect for Garin is believed to have encouraged Oliba to leave the 10th century abbey church at Cuxa largely intact, although the aisles were raised and vaulted and an ambulatory was grafted onto the exterior of the sanctuary to provide access to three new chapels [50]. The southern apse of the modified chevet survives: the external masonry is typical of the local approximation to *petit appareil*, but includes neither arched corbel table nor Lombard pilaster strips. The axial window is framed in dressed granite blocks, that of the sill with a central trench, and that of the lintel with an arched recess cut in its lower surface [58]. In contrast, the reveals of the three window openings of the north aisle are less clearly defined, although an *arco bardellonato* is set above their slightly horseshoe-shaped heads [59].

An imposing two-storey rotunda formed the centrepiece of an extensive addition to the west end of the building [61-66]. The fabric and decoration of this phase of construction reflect First Romanesque practice, but the ground plan of the structure owes more to Carolingian models than contemporary architectural innovations.⁴⁸⁵ This was not the case

www.monestirderipoll.cat (accessed 13.03.20). The photographs are held by the Arxiu Històric del Col.legi d'Arquitectes de Catalunya, Fons Elies Rogent.

Brigitte Uhde-Shtal, 'La chapelle circulaire de Saint-Michel-de-Cuxa', *CCM* [80] 1977, pp.339-51: comparisons are made with Corvey and Saint Pantaleon, Cologne. Further reference to Pre-Romanesque forms: Eduard Carbonell i Esteller, 1991; Joan Duran-Porta, 'Les cryptes monumentales dans la Catalogne d'Oliba. De Sant Pere de Rodes à la diffusion du modèle de crypte à salle', *SMC* [40] 2009, pp.325-40. Both Ripoll and Girona included a complex *westwerk* with affinities to Carolingian or Ottonian models in their original design; for context, see Marc Sureda i Jubany, 'Architecture autour d'Oliba. Le massif occidental de la cathédrale romane de Gérone', *SMC* [40] 2009, pp.221-36.

with the two prominent towers erected over the ends of the transept arms, believed to have been instigated by Oliba but not completed before his death in 1046 [67-69]. 486

The alterations at both sites included no proven features which were beyond the competence of indigenous master-masons: by the 1030s, when the work was undertaken, the use of *petit appareil* and Lombard ornament, together with the installation of barrel vaults of limited span, were all part of an established repertoire of building techniques. The need for imported skills was therefore minimal, being restricted to the erection of a crossing tower at Ripoll, if one was indeed included in the original design, and the dome which may have crowned the western rotunda at Cuxa.⁴⁸⁷ Recognising the dominant role played by local labour at these two sites goes some way to overcoming a major hurdle in the argument attributing Oliba a role in the direct recruitment of master-masons, this being the concurrent nature of the building programmes carried out under his direction.

However, in contrast to Ripoll and Cuxa, Oliba's remodelling of the episcopal complex at Vic adds a new perspective to the conception and construction of early 11th century religious buildings. Archaeological investigations have confirmed that the cathedral church of Sant Pere, consecrated in 1038, comprised a single nave with a grand central apse and projecting transept arms [115,116].⁴⁸⁸ The deviation from the basilican plan in such a high-status building runs contrary to the opinion of Puig, who attributed churches of this design to subordinate categories in his early classification of First Romanesque monuments [117].⁴⁸⁹

They are not mentioned in Garsias' description of the church, which is believed to have been written ca.1043-46: see Ramon Orteig i Mata, 'La documentació del monestir de Cuixà referent a Oliba i als anys del seu abadiat', *SMC* [40] 2009, pp.39-52. Cf. *Marca*, col.1072, where the document is dated to 1040.

Puig i Cadafalch, 1909-18: v.2. p.123.

Marc Sureda i Jubany & Pere Freixas i Camps, 'Esglésies de nau única en el primer romànic català. Les catedrals de Girona i de Vic, escenari de continuïtats i ruptures en l'arquitectura del segle XI a Catalunya', pp.40-51 in Freixas & Camps, 2010

Puig i Cadafalch, 1909-18, v.2. Churches described as having a single nave are relegated to a chapter [2:XVII] dealing with small rural buildings; other examples are classified according to the design of the chevet [2:XIII, 2:XIV, 2:XVI].

In the case of Vic, the decision to dispense with side aisles was unlikely to have been dictated by economic factors, but by a preference for a model which appeared elsewhere in southern France as a variant of First Romanesque or earlier practice. The monumental aspect of Sant Pere was achieved by increasing the width of the nave to 12m, and applying the same scale to the projecting central apse. The possibility that a span of these dimensions was bridged from its inception by a barrel vault on transverse arches focuses attention on the competence and origins of the master-mason involved. The difficulty in attributing the role to an indigenous craftsman lies in the lack of precedent, the construction of a barrel vault elsewhere in the region being restricted to vessels of no more than 8m in width. The prominent bell-tower retained in later remodelling of the cathedral confirms that the fabric of the building was of typical First Romanesque style, but executed — especially in the case of the dog-tooth moulding - with a degree of finesse made possible by the qualities of the native stone [118,119].

Oliba may also have been indirectly responsible for a similar model being used for the contemporary cathedral of Santa Maria de Girona, this being inferred from his family connections with its sponsors.⁴⁹³ The rebuilding programme was the initiative of bishop Pere Roger of Carcassonne, whose sister Ermessende was the wife of Oliba's distant cousin, count Ramon Borrell of Barcelona, and the major patron of the building.⁴⁹⁴ All shared a common

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Junyent, 1971: pp.12-13.

Puig considered Vic and Serrateix as exceptions to the rule, rather than a distinct means of visualising a high-status church. The view of grand single-nave churches as a 'simplification' of the basilican plan was reiterated by Eduard Junyent i Subirà, *Catalogne romane*, Yonne (Zodiaque) 1968, pp.23-24, 27.

Vivian Paul, 'The Beginnings of Gothic in Languedoc', *Art Bulletin* [70:1] 1988, pp.104-22. Limited resources may explain a preference for a single nave in the churches of Ausona more generally, as these were associated with a period of recolonization when reinstatement of border fortifications was also taking place.

⁴⁹¹ Gerardo Boto & Marc Sureda, 'La cathédrale romane: architecture, espaces, circulations', *SMC* [44] 2013, pp.75-89

A similar model was adopted at Girona, where Oliba maintained close links with successive bishops: Eduard Junyent, 'El abad obispo Oliba y Gerona', *Revista de Girona* 1971, pp.12-15.

For the historical context, see Junyent, 1961: pp.92-93. The only sections of the building that survive are the two lower storeys of the tower, which was not completed until the second decade of the 12th century.

interest in church reform, and a close link with Ermessende is given substance by Oliba's continuing role as counsellor after the death of her husband, when he was called upon to arbitrate in a number of family disputes.⁴⁹⁵

Similar circumstances surrounded the construction of Sant Vicenç de Cardona, consecrated in 1040, where Oliba had no direct responsibility for the building programme, but was on close personal terms with its original patron, viscount Bremond, and his successors. The remarkable state of preservation of Sant Vicenç is only eclipsed by the complexity of its design, which has been cited as an early example of 'structural rationalism'. Occupying the same hilltop site as the adjoining castle, the eastern elevation of the church presents a tiered arrangement of apse, transept and crossing tower which dominates the skyline. An aisled nave of three bays built in modular fashion extends to the west, where it terminates in a groin-vaulted narthex [120,121].

The *petit appareil* employed at Sant Vicenç largely comprises blocks of similar size bedded in horizontal courses which continue around the envelope, with alternate bonding visible in the projecting pilasters. Dressed stone is used sparingly in reinforcing the external angles of the building, being most prominent at the junction between the semi-circular section of the principal apse and the bay linking it to the transept. The external ornament is formed of pilaster strips separating narrow panels with twinned arches at their head, these being augmented at the summit of the apse by a series of prominent eaves niches. The pattern is broken on the transept, however: eaves niches are retained on the eastern elevation, but without the Lombard ornament, whilst on the gable walls a broader central

Camps i Sòria & Lorés i Oztet, 2005.

⁴⁹⁶ Junyent, 1971: p.34ff.

⁴⁹⁷ Above, p.22; cf. Reed, 2000: pp.24-41.

panel creates a 2:3:2 configuration, with all but central arch of the corbel table rising in line with the eaves. The octagonal crossing tower is devoid of ornament, with each face pierced by an opening with parallel reveals and semi-circular arched head [122].

Internally, the niches set in the wall of the apse correspond with the external panelling, each pair being divided by a half-shaft [123]. The sanctuary is raised over a groin-vaulted crypt supported on turned columns with chamfered cushion capitals. The crossing-tower has a domed vault supported on squinches, a central oculus allowing light to enter from the openings set higher in the perimeter walls. In contrast to the internal niches of the apse, which Puig considered an example of archaic practice, the crossing-tower was cited as evidence of contemporary links with northern Italy, thus strengthening his case for an imported master-mason being responsible for the project.⁴⁹⁸

The piers of the nave arcades are essentially of cruciform section, with pilasters projecting from each face of a rectangular masonry core: however, those of the nave are stepped, with the outer order ending abruptly at the base of the clerestory and only the central section rising to merge with the transverse arches supporting the nave vault [124]. On the other faces the pilaster continues around the soffit of the arches forming the arcade and those bridging the aisle between adjacent bays. The decision to install groin vaulting over the narrow aisles added further complexity to the architectural detailing of the structural supports, with subsiduary arches erected to divide each compartment into three, and formerets incorporated in the lateral walls.⁴⁹⁹ The width of the support opposite each

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Puig i Cadafalch, 1909-18: v2, p.168. For Italian precedents, pp.169-72.

lbid. p.163. The aisle roof may have had an additional role in supporting a platform linked to the defensive system of the castle. Puig's interpretation of the church, and especially of the clerestory as an original feature, was hampered by its condition, which had been materially altered during its use as a military installation.

arcade pier was increased to counter the thrust of the vaulting, with the stepped crosssection of the transverse arches being retained as its central component [125].

A striking feature of the nave is its height, which exceeds that of the choir and transept arms and abuts the western face of the crossing tower. In a development almost unique in Catalonia, the elevation of the nave above the roof line of the aisles results in a prominent clerestory, with windows set centrally either side of each bay at this level complementing those of the aisles. However, a break in the masonry and the change in profile of the pilasters lining the nave indicate that this was a later modification, the original barrel-vault being set at the same height as those of the apse and transept. This interpretation explains the opening set at a high level in the eastern wall of the nave, which exhibits the splayed reveals typical of a First Romanesque window and corresponds to others located above the roof-line of the apse and designed to illuminate the crossing [124]. Revising the date of construction of the clerestory does not detract from its significance, but has a crucial bearing on the influences motivating the master-mason of Sainte-Eulalie de Fuilla d'Aval, the most distinctive parish church in Conflent. Soi

Oliba's relationship with viscount Bremond's family may also have been instrumental in the design of Sant Pere de Casserres, founded by the dowager countess on land purchased from count Ramon Borrell of Barcelona, and consecrated in 1050. The ground plan of the building is approximately square, with a broad central nave flanked by narrower side aisles, a significant feature being the span of the transverse arches supporting the nave barrel-vault and those forming the arcade [126-131]. The collaterals are raised almost to the height of

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Fernie, 2010.

Below, pp.199-206.

the nave, their vaulting effectively countering the lateral thrust of that erected over the central vessel, the whole being covered by a simple pitched roof. This configuration was introduced to the region at Saint-Martin du Canigou, and its adoption at Casserres may represent a case where Oliba was a party to the design of the church.⁵⁰²

From a constructional point of view, it is important to recognise that all these high-status sites lie within the same belt of easily-worked Cenozoic sedimentary formations, both sandstone and limestone being prominent in the type series. The favourable geological conditions aided the early introduction of *petit appareil* and the inclusion of well-worked architectural detailing; they also made possible the drawing-up of a masonry specification which could be applied across a range of dispersed sites either by imported craftsmen or, more significantly, by indigenous masons of more limited technical ability.

How far these advantages were exploited remains unknown, Oliba's direction of the early 11th century expansion of church building in rural communities being relatively undocumented, despite many of the establishments being dependencies of the monasteries under his control. The majority of the recorded or conjectured instances of his presence at specific locations relate to his involvement in monastic or judicial affairs, rather than his witnessing the consecration of parish churches.⁵⁰³ His absence is particularly marked in Ausona, where his ecclesiastical office carried the responsibility for reinstating the parochial system of a province laid waste by Muslim forces.⁵⁰⁴

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Puig i Cadafalch, 1909-18: v2, p.149ff. Despite the use at Casserres of transverse arches, it is included in a small group of early churches of uncertain date, such as La Cluse Haute, which were covered in continuous barrel vaults. To some extent this undermines his classification system, where the introduction of the feature was considered diagnostic of the later evolution of the First Romanesque style; see above, pp.34, 41 & Figures 3,10,11.

Junyent, 1971: pp.48-49.

To Figueras, 1991. An integrated parish system developed in Ausona during the 10th century in parallel with the construction of frontier defences. Although placed under the authority of the bishop, the churches built during this period were the work of local castellans anxious to encourage the recolonization of abandoned lands. Cf. Michel Zimmermann,

The position is equally unclear in Conflent: Cuxa's network of dependent churches had almost doubled in size between 950 and the end of the 11th century,⁵⁰⁵ many of these being renovated or rebuilt during Oliba's stewardship, but on only two occasions is he recorded as being present at their dedication.⁵⁰⁶ It is impossible except in the most general terms to attribute common features to those that survive, beyond the fact that they were invariably constructed of local materials and of a scale proportionate to the size of the community served. It cannot be taken for granted that all were decorated in First Romanesque fashion, although this is the case in the isolated examples that have escaped later modification. Moreover, they are not noted as sites where innovatory structural methods were pioneered; in fact, the analysis of individual monuments undertaken in the next chapter reveals that vaulting the nave of the majority of Cuxa's dependencies was probably a 12th rather than 11th century phenomenon.

Thus, when the context is limited to the rural churches of Conflent which fell within his remit, there is nothing to suggest that an overarching 'Oliban' style existed, or that these buildings were beyond the competence of indigenous craftsmen. Ruling out a direct influence does not preclude his major monuments acting as a catalyst for the wider dissemination of the style or, in the case of the dependencies of Cuxa, his architectural leanings being propagated by a supervising mason despatched from the mother house. The problem lies in explaining the disjunction between developments in the monastic field and those associated with churches founded by local communities, where specific buildings

^{&#}x27;Sur la terre comme au ciel: la paix chrétienne. Oliba (1008-1046), pacificateur et guide des âmes', *SMC* [40] 2009; Oliba's energies were directed at securing the frontier zone, a number of castellanies falling under his remit as bishop of Vic.

Junyent, 1971: p.48; these are Saint-André de Cattlar and Sainte-Marie de Planès.

suggest that First Romanesque techniques and aesthetics were more fully embraced by lay sponsors than those with a known connection to the ruling elite.

Patronage in the late-11th and early-12th centuries

The intimate association between comital houses and the monasteries lying within their territories lasted throughout the first half of the 11th century, but tended to weaken as Catalonia became more closely aligned to Rome, and power shifted into the hands of the episcopacy. The response of the counts was to ensure that members of their immediate family were appointed to key bishoprics, a tendency epitomised by the political manoeuvring of count Guifred.⁵⁰⁷

A late example of the involvement of a local comital house in the rebuilding of a cathedral in First Romanesque style occurred at Barcelona, however, where a replacement for the structure severely damaged by Al-Mansur in 985 was consecrated in 1058, and largely underwritten by count Ramon Berenguer I.⁵⁰⁸ The committal of funds to the project emphasises the monetary reserves accumulated from the levies imposed on the Arab *taifas* of Zaragoza and Lleida in return for Catalan involvement in their resistance to Almoravid incursions.⁵⁰⁹

⁵⁰⁷ Above, pp.149-50.

For discussion of the design and precedents of the cathedral, Julia Beltrán de Heredia Bercero & Immaculada Lorés Otzet, 'La catedral romànica de Barcelona: revisió de les dades arqueològiques i de l'escultua', *Quaderns d'arqueologia i història de la cuitat de Barcelona* [1] 2005, pp.100-117; Stefano Maria Cingolani, 'Estratègies de legitimació del poder comtal: l'abat Oliba, Ramon Berenguer I, la Seu de Barcelona i les Gesta Comitum Barchinonensium', www.academia.edu/3768667, 2008, (accessed 11.11.20, no page numbers).

John Middleton, *World Monarchies and Dynasties*, London & New York (Routledge) 2015, p.925. Zaragoza was a discrete polity between 1018 and 1110, when it fell to Almoravid forces. Lleida existed independently between ca.1040 and 1105. Cf. Bernard F. Reilly, *The Contest of Christian and Muslim Spain*, 1031-1157, Oxford (Blackwell Publishing) 1995, pp.48-49; O'Callaghan, 2003: p.23.

The economic strength of Barcelona contrasted with the situation north of the Pyrenees, where the ruling elite was poorly placed to benefit from lucrative alliances with the warring emirates on the borders of Muslim Spain. Bequests were still made, but on a reduced scale, these favouring the Augustinian priories established in response to the Gregorian Reform. In 1094, for example, count Guillem-Raimond ceded ownership of Santa-Maria de Corneilla de Conflent to regular canons of the Augustinian Order, and at approximately the same time the church serving the newly-founded settlement of Villefranche de Conflent was entrusted to the same hands. ⁵¹⁰ In neither case is there documentary evidence suggesting that these transfers of authority involved financial donations.

The waning influence of the comital house of Cerdagne-Conflent on architectural developments in the region in the later decades of the 11th century encouraged the diocesan authorities or individuals of lower status to step into the breach. To judge from the renewed activity after the death without heir of Bernard-Guillem in 1117, and the reversion of the county to Ramon-Berenguer III of Barcelona, a demand for community churches had not been satisfied by the campaign of building and renovation undertaken in the halcyon days of count Guifred and his brothers. Although population pressures eased during this period as new opportunities emerged for the colonisation of frontier areas south of the Pyrenees, societal and political change encouraged the remaining inhabitants to congregate for mutual protection in newly-founded hamlets.

In Conflent, the process was most marked in the Fenouillèdes, where the inhabitants of the region faced the double threat of French raiding parties and the exactions of castellans tasked with defending the frontier. Their success can be measured in the number of churches

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constructed in the late 12th century, and reflecting the prevailing Augustinian aesthetic that nuanced the grander Second Romanesque monuments of the county.⁵¹¹ They confirm a general improvement in stone-working techniques, with both native granite and massive schist being cut and dressed for the masonry of prominent parts of the building, and for the sculpted ornament which increasingly became the dominant decorative motif of the apse.

There exists in consequence a period of almost a century after the death of Abbot Oliba when the later evolution of First Romanesque stylistic markers in Roussillon is poorly represented. The few churches reliably assigned to the turn of the 11th century confirm that the use of Lombard panelling again became restricted to the apse, or was gradually replaced by plain masonry and a more austere treatment of the eaves horizon. In Conflent, the trend is witnessed at a number of rural sites where the detailing at the spring-line of the apse was limited to a course of concave or chamfered blocks, without the carved elements which began to make an appearance in neighbouring counties during the early decades of the 12th century.

To some extent the situation in Conflent may be explained by demographic change, with the buildings of the period being constructed in the newly-founded hamlets of the Fenouillèdes, where the native stone was least amenable to the sculptor's chisel. Some of these may be representative of the last phase of the First Romanesque within the county, but an extreme simplicity of design and lack of documented consecration dates precludes their being considered as such for the purposes of the present analysis.

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Chapter 7

The First Romanesque churches of Conflent.

The distribution and chronology of First Romanesque churches in Conflent

Only eight consecration charters exist for churches built in Conflent during the 11th century, and all relate to sites on or adjacent to the Canigou massif. Establishing an internal chronology for the First Romanesque period therefore depends on typological comparisons whose reliability is heavily influenced by the nature of the available building stone. Estimated dates of construction are more compelling for the monuments located south of the river in the upper Têt valley, where a similar geological environment prompted masons to develop identical methods of handling weathered gneiss and granite to those pioneered on the massif. In contrast, the different masonry style which emerges in the Fenouillèdes results in Lombard ornament being the common denominator shared by churches constructed of schist. Here subtle variations in the projection of pilaster strips and sequencing of apse panelling are the only means of dating the buildings, with undue confidence placed on practice in the neighbouring county of Capcir. Equally tenuous are the means employed at sites further east, where it is the ability of the mason to work native granite which sets the broad parameters for assigning the work to the late-11th or early 12th centuries.

These factors determine the approach taken in organising the detailed architectural analysis of individual sites, with those of known date on the Canigou massif providing the framework for regional variations in the adoption of system, style and structure. Typological comparisons will subsequently be used when assessing the salient features of churches in adjoining regions: firstly, when considering monuments located in the Pyrenean foothills

further west; secondly, when tracing the adaptions to system and style demanded by the building materials available north of the Têt; and finally, when evaluating the later examples of First Romanesque architecture preserved in the landscape east of Canigou. Each entry includes a reference to a location map [132] which can be consulted in conjunction with those detailing the geology and topography of the region [19,35].

Bell-towers: a cautionary note.

It is tempting to reference the architectural detailing of the prominent bell towers of Conflent when drawing up a relative chronology for local churches, but equating simplicity of design with an early date has proved ill-advised. With the exception of Saint-Martin du Canigou, local towers are not considered to have been constructed before the 1040s, although elaborate examples are known to have been completed south of the Pyrenees in the previous decade, notably at Vic and Girona [118,119].⁵¹² Only the lower section of the tower at Saint-Martin is assumed to have been completed by 1026, the more complex upper stories reflecting a mid-century campaign [135]. The twinned transept towers of Saint-Michel de Cuxa show a similar sophistication: although credited with planning the work, these were built after the death of abbot Oliba in 1046 [67-69].⁵¹³ The association of Sainte-Marie de Corneilla de Conflent with the comital house of Cerdagne-Conflent explains the elaborate treatment of its tower, which again suggests a mid- to late-11th century date for the structure [157].

Counterintuitively, the more austere versions associated with parish churches have been assigned dates in the third quarter of the century, and may have been additions to

Noël Bailbe, Les clocher-tours du Roussillon, Perpignan (Socété agricole, scientifique et littéraire) 1989, p.27ff.

The mid-century date for the towers at Cuxa is deduced from their not having been mentoned in Garsias' account, thought to have been written shortly after the death of abbot Oliba in 1046.

existing buildings.⁵¹⁴ Only in churches where the base of the tower is incorporated within the envelope of the original structure is it possible to say with any certainty that the feature was part of the initial concept; even then it cannot be assumed that the structure was complete at the date of consecration, or was the product of a single construction programme. The auxiliary function of the tower as a refuge of last resort for the population in times of unrest may have prompted the early completion of the lower storeys, with the superstructure being a later addition. In Conflent, a phased project can be suggested for the tower at Saint-André d'Evol, where there is a distinct step in the masonry above the lower storey, and the rectangular enclosure projecting from the south-eastern corner of Saint-Julien-et-Sainte Basilisse de Jujols has been interpreted as the base of a tower which either collapsed, or was never completed [228,235].

Whether partially or wholly completed, towers would only have offered temporary protection against impromptu attacks on goods and livestock, but may have served an alternative function as the site of beacons warning of organised incursions. For example, clear sight-lines existed between the network of churches in the Rioja and Cady valleys: from Saint-Martin du Canigou via Vernet and Saint-Clément de la Sierra to Corneilla, Sahorre, Fuilla and Jujols. Anomalies do exist, however: on the one hand, the lack of a tower at Saint-Vincent d'Eus breaks the potential chain of communication between Marquixanes and Prades; on the other, that of Nyer would have served no useful purpose, the church being concealed in a valley. Despite these provisos, the towers could well have been an essential part of an early warning system which became more formalised from the late 11th century onwards.⁵¹⁵

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Bailbe, 1989; p.31ff.

For the expansion of the system, see Anny de Pous, *Les tours à signaux*, Perpignan (Éditions Conflent) 1980.

The waning of First Romanesque architectural influences in Roussillon.

The intense activity which marked the introduction of First Romanesque architecture north of the Pyrenees was echoed in the mid- to late-12th century building or remodelling of the cloisters at a number of Benedictine houses. The use of carved local marble at these sites is widely accepted as the first manifestation of the advanced stone-working techniques characteristic of the Second Romanesque style. The earliest was installed at Cuxa in the period between ca.1125 and 1140,⁵¹⁶ with programmes subsequently being undertaken at Saint-André de Sorède⁵¹⁷ and Saint-Martin du Canigou.⁵¹⁸ A 'second atelier' has been identified at Cuxa, and credited with conceiving and executing the sculpted marble tribunes erected slightly later in both the mother house and the abbey church of Serrabone.⁵¹⁹

The exploitation of Villefranche marble at Cuxa is considered a precedent for its employment in neighbouring rural churches, which have thus generally been assigned to the second half of the 12th century. However, this view assumes that production of marble components of adequate dimensions for the cloister occurred *ex nihilo*, and pays scant regard to the proving of suitable reserves which would have been required for such a venture to be undertaken. A compelling case might be made for limited extraction of marble earlier in the century, and a more gradual accumulation of the skills needed for its treatment. The early 12th century date tentatively suggested for the modest chapel of Saint-Étienne de Campilles, where well-worked blocks of local marble were used in the construction of the door surround, reflects this possibility.⁵²⁰ More intriguing is the identification of a carved base at Cuxa as a

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Mallet, 2000: p.26.

⁵¹⁷ *Ibid.* p.59: constructed ca.1170.

Ibid. p.63: also dated to the 1170s; the stone used is the white marble outcropping near Py.

lbid. p.257*ff*: the atelier is believed to have been operative in ca.1150.

⁵²⁰ Below, pp.227-28.

component of the baldaquin erected by abbot Oliba before 1046:⁵²¹ if this opinion is accepted, expertise in the working of Villefranche marble for both structural and decorative purposes was acquired well before its manifestation in the cloister and tribune of Saint-Michel.

Building practice at Sainte-Marie de Serrabone (*Aspres*) also illustrates a confident use of native schist, with large blocks of the massive variety – some with moulded angles - being employed in the main body of a building consecrated in 1151. The occasional inclusion in the apse of the church of stone being cut to a radius curve has relevance for dating purposes, mastery of the procedure not being apparent in Conflent before Sainte-Marguerite de Nabilles was built at the end of the century. Such detailing contrasts with the small, cuboid blocks of schist used when raising the fabric of the apse at Saint-Étienne de Sofrunys, a factor justifying the church being assigned a date in the decades either side of 1100.

Apart from the treatment of building stone, the attribution of churches to the latter half of the 12th century is generally based on the two-centred form of their vaults. Such a conclusion must be considered speculative: a similar profile had earlier been established in Umayyad Spain, and had also entered the vocabulary of Benedictine architects by the turn of the 11th century.⁵²⁴ Thus, in the absence of corroborative evidence in the form of masonry

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Immaculada Lorés Otzet, 'La promoción artística d'abades-obispos en monasterios románicos de Cataluña: algunas notas a propósito de Sant Cugat del Vallès y de Sant Miquel de Cuixà', pp.151-167 in José Angel García de Cortázar & Ramón Teja [Eds], *Monjes y obispos en la España del románico: entre la connivencia y el conflicto. Seminario sobre Historia del Monacato*, Aquilar de Campoo (Fundación Santa Maria la Real) 2013; 'La sculpture de Saint-Michel de Cuxa à l'époque de l'abbé Oliba', *SMC* [38] 2007, pp.183-191. Also *Marca*, col.1079: Garsias description of the baldaquin refers to 'marmore rubicundi coloris', a sufficiently generic term to cover both the 'flambé and 'griotte' varieties of Villefranche, and the breccia – or 'false marble' - which outcrops near Baixas, north-east of Perpignan.

⁵²² Mallet, 2003: p.167.

The church is all that remains of an abandoned hamlet north of Conat, in the Fenouillèdes.

Kenneth Conant, 'Early Examples of the Pointed Arch and Vault in Romanesque Architecture', *Viator* [2] 1971; the form was widely used in the construction of Cluny III between ca.1088 and 1120.

detailing or external ornament, the profile of the vault cannot be considered diagnostic of Second Romanesque practice

Despite possible efforts in the late 11th and early 12th centuries to perfect the working of local stone, it is the construction of the cloister at Cuxa which marks the definitive end to First Romanesque practice in Conflent, and completes a cycle set in motion by the architect(s) of Saint-Martin du Canigou. Within this time-frame, the style evolved in a manner comparable with that in other areas of southern Europe, but under the handicap of an extreme geological environment. The limited expertise acquired in the 10th century in the sourcing and treatment of native materials had to be rapidly enhanced to encompass a new understanding of statics, a new system of building, a new proficiency in weaving decorative motifs in stone which was fundamentally unsuited to the purpose.

Site analysis

For a number of reasons, the Canigou massif furnishes the most appropriate starting point when considering the First Romanesque architecture of Conflent. In the first place, it includes the three buildings — Saint-Martin du Canigou, Saint-Michel de Cuxa and Sainte-Marie de Corneilla - most closely associated with the comital house, and hence with individuals best placed to promote (and underwrite) innovative building programmes. These will be accorded pride of place, their structural and decorative features having the potential to influence masons at neighbouring sites. Secondly, the existence of firm consecration dates for a number of the local monuments enables the trajectory of stylistic change within the county to be plotted against time. Finally, the characteristics of the native stone presented the master-mason - be he imported or indigenous - with a unique challenge, and its use as

the basis for a local variant of *petit appareil* argues for a commonality of approach on the part of the artisans responsible for both monastic dependencies and parish churches.

Saint-Martin du Canigou [E5]

Saint-Martin du Canigou justifiably features in all the standard works on Romanesque architecture by virtue of the ambition of the architect(s) who conceived it, and the sophistication of the means used to achieve a particular goal. The restricted nature of the site – a vertiginous spur of the Canigou Massif, above the Cady valley – was instrumental in the decision to construct two superimposed churches, thus leaving space for the other necessary conventual buildings [133-135]. Despite the difficulties in ensuring the structural stability of the complex presented by its unique spatial organisation, the church was vaulted in its entirety. Given that the building was completed by 1026 at the latest, the technically advanced construction techniques used have frequently been seen as signalling the presence at the site of imported master-masons.

However, correlating the extant documentary evidence to the sequence of building phases that took place at Saint-Michel involves a degree of conjecture. For certain authorities, a clear point of departure is indicated by a charter of 1007 detailing the extensive donations made by count Guifred of Cerdagne-Conflent and his wife Guisla in order to finance the new church. Two years later the first act of consecration specifies the three personages — the Virgin Mary, Saint Martin and Saint Michael — to whom the principal altars of the church were dedicated. As such a short time-span would have been insufficient for the completion of the whole complex, it is presumed that this act refers to the raising of the eastern section

MH Base Mérimée PA00103981 (designated 1889).

Vergnolle, 2009; Marcel Durliat, 'Architecture romane', BM [130:4] 1972b.

Marca, col.964: Appendix N.

which houses the sanctuaries traditionally associated with these figures – respectively the central apses in the lower and upper church, and the chapel occupying the second storey of the tower. An interval of unknown duration then elapsed before the westward extension of the building was undertaken, with the completed building being celebrated by a second consecration in either 1014 or, more convincingly, 1026.⁵²⁸

Imagining the complex as being linked to a monastic community which occupied the site prior to 1007 is an argument given more credence by specialists in the architectural history of Roussillon, and based on their interpretation of charter evidence from the late 10th century. Four documents dating from 997 to 1000 mention a church built by Guifred on the slopes of Canigou, and an entry in the archives of the monastery states that the project was initiated in 1001.⁵²⁹ Support for work being carried out prior to 1007 is also furnished by a grant by Guifred and Guisla of extensive lands in the vicinity of Vernet in 1005.⁵³⁰ The earlier date is persuasive in mitigating the problem posed by attributing a major part of the fabric to the three years between 1007 and 1009, this in climatic conditions which inevitably shortened the season during which lime mortar could be employed.⁵³¹

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Vergnolle, 2009; *CR* [7] p.326; both these dates are derived from an incomplete historical record of the abbey, and their reliability has been questioned. For the earliest possible date for the completion of the western extension at ground-floor level, see Mathias Delcor, 'Les origines de Saint-Martin du Canigou de la légende de l'histoire', *SMC* [3] 1972. In this interpretation the crypt is considered a 10th century structure, the *domum Sci Martini* already in existence in 1007: *Appendix* N, lines 6-7. Other authorities maintain that whereas the columns were probably salvaged from an earlier building, the crypt was conceived from the outset as part of a two-storey complex: cf. *CR* [7]: p.331; Durliat, 1989: pp.209-38.

CR [7], p.325: this is the Chronicon breve destroyed during the French Revolution and only preserved in later transcriptions. Cf. Francisco Montsalvatge y Fossas, Noticias Históricas, v.9, Olot, 1899, https://bvpb.mcu.es (accessed 09.09.20)

Ponsich, 1995: *CR* 7, p.325*ff*; Delcor, 1972. The earlier date is cited in a number of Engish language publications: for example, Conant, 1978: p.115; Robert G. Calkins, *Monuments of Medieval Art*, Ithaca, NY & London (Cornell University Press) 1979, p.62; R. Furneaux Jordan, 1969: p.105. The continuing influence of Carolingian models in the late 10th century has been noted in the rebuilding of Sant Cugat dels Vallés, west of Barcelona, immediately after the monastery was destroyed by Al-Mansur in 985; see Carbonell i Esteller, 1987.

The site is approximately 1000m above sea level, and only reliably frost-free for 3 months of the year (mid-June to mid-September).

The intermittent injection of funds by Guifred and his wife in later years also provides circumstantial evidence that the work was carried out in stages,⁵³² and this is confirmed by the architectural detailing of the complex. These grounds allow the finished structure to be divided into three sections: a 'crypt' at the east end of the lower level; its western extension or 'under-church'; and a superimposed 'upper church' which, by dint of subsequent terracing, now forms the ground-floor level of the complex [136].

From an architectural perspective, analysis of the project focuses on the logical starting-point of the building at the east end of the lower storey, where the techniques used in roofing the structure differ markedly from those found elsewhere in the complex. These resemble those of Carolingian hall-crypts, where central and side aisles of equal height are subdivided into small compartments by arcades and transverse arches set on monolithic columns, and groin-vaulted.⁵³³ Early precedents in France include the Merovingian crypt of Notre-Dame de Joarre (Seine-et-Marne) and the more complex, mid-9th century example at Saint-Germain d'Auxerre (Yonne). The model is also known to have been used in Lombardy, however, where the crypt of SS Pietro e Paolo, Agliate, is ascribed to the late 9th or early 10th century, 534 and that of San Vincenzo, Galliano, was approximately contemporaneous with the initial phase of construction at Saint-Martin du Canigou, the church being consecrated in 1007. Contacts cultivated in northern Italy by the upper echelons of Catalan society – both lay and monastic - tilt the balance in favour of this region being the recruiting ground for master-masons engaged on the grander projects of the Marcher counties, for which Saint-Martin was a precursor.

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Above, pp.144-45.

For the origins of the crypt and its developing sophistication, see Conant, 1978: pp.64-68; Stalley, 1999: pp.159-

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⁵³⁴ Conant, 1978: pp.110-11.

At Saint-Martin each vessel of the crypt terminates in a semi-circular apse cut in the bedrock, with the cells to the west covered by groin vaults, those of the aisles being supported at the perimeter walls by shallow pilasters and formerets projecting from the background fabric [137-139]. The series of north-south arches are neither parallel nor evenly-spaced, which results in the floor area of each compartment describing an irregular quadrilateral, with the three western cells being larger than those to the east. The provenance of the granite columns and capitals is unknown, but the pronounced entasis and integral astragal moulding suggests that the former were salvaged from an earlier building [138,139]. The six capitals are also of archaic form, and show varying degrees of surface treatment: the two either side of the main apse display figurative carving in low relief, two are adorned with horizontal mouldings and two are left undecorated [140]. The components have been tentatively linked on stylistic grounds to 6th century Visigothic examples.⁵³⁵

A recent discovery of rendering on the external surface of the western wall of this part of the monument attests to its having been conceived as a stand-alone building, possibly surmounted by a sanctuary approached by a central or lateral stairway(s).⁵³⁶ Envisaging this as a lightweight structure circumvents the issue raised by the restricted dimensions of the columns and transverse arches beneath: although these would have been adequate for a raised platform subjected to limited loading, they appear unsuited to their eventual function as supports for a superimposed church.⁵³⁷

A sanctuary raised above a crypt may have been a temporary expedient, with the initial intention being to create a single-storey basilica.⁵³⁸ The assumption that a radical

⁵³⁵ Ponsich, *CR 7*, p.331.

Vergnolle, 2009. It is suggested that the western façade originally functioned as a 'prayer wall' (mur de confession).

⁵³⁷ Ibid

Delcor, 1972.

change of design occurred after the crypt had been completed is based on measures later taken to strengthen the substructure. Four of the six columns were at some point encased in masonry, but it is impossible to be sure that this precaution postdated or was coeval with a second phase of construction [141]. Significantly, the two left exposed are positioned centrally, and arguably the most critical in ensuring the stability of the upper storey, an oversight that has never been adequately explained. However, two buttresses were built against the western wall of the crypt, and must logically have been intended to counter the thrust of the longitudinal arcades when subjected to increased loading.

One projected phasing of the work therefore presupposes that much of the eastern end of the complex, including the two lower compartments of the tower, was completed in one programme and enabled the three altars named in the consecration in charter of 1009 to be installed in their appropriate settings. However, this interpretation of events sits uneasily at times with the physical evidence, and especially with the marked discontinuities in the structural skeleton used in different sections of the building.

A major objection to the eastern end of the complex being the result of a continuous build are that the two footprints do not coincide: although the south wall of the two churches was brought into alignment by applying a slight offset to the upper chevet, its northern counterpart was inset by approximately one metre. In consequence, the internal width of the upper church was reduced and demanded an adjustment to the arcades, with the result that their columns exert a spot load on the underlying groin vaulting which, as noted above, was not designed for the purpose. Access to the crypt being unobstructed at this point, the

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Vergnolle, 2009: there is a degree of consensus that these measures were taken prior to the construction of the upper church, but they could conceivably have been linked to the major earthquake in 1428 which caused a partial collapse of the tower.

master-mason would have had ample opportunity to ensure that the spatial arrangement of the upper church did not compromise its structural integrity. His failure to do so furnishes *prima facie* evidence that this part of the building was constructed in two phases, with the design parameters of the second being only marginally influenced by those adopted for the earlier programme.

A similar observation holds true for the western continuation of the building, which has in the past also been considered the product of a single campaign. The origins of this misapprehension are to be found in Puig's architectural analysis of the abbey, and the much-reproduced illustration which shows the nave arcades and transverse arches of the upper church vertically aligned with underlying supports [142]. Although the axes of the southern arcades in the western section of the complex correspond, those to the north do not, and in neither case are the columns centred on the piers beneath. Equally, the cruciform pillars midway along the upper nave bear on vaulting rather than on the substantial buttresses abutting the western wall of the crypt [136].

Given that structural stability was the overriding preoccupation of the builders of early vaulted churches, it is inconceivable that the master-mason would have omitted to centre the columns of the upper church on the piers below — or at least on the intervening arches - if engaged in a continuous build. There is certainly no technical reason why a solid masonry base for the columns could not have been raised above the spring line of the vaults before roofing the lower church, the transverse arches furnishing ample bearing for their

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⁵⁴⁰ Cf. Durliat, 1972. Here the work is considered to have been carried out simultaneously from east to west on both levels of the church.

formwork. This part of the complex must therefore have been erected as a discrete unit, and with no provision being made for subsequent developments.

It therefore seems logical to assume that Saint-Martin was built in three phases rather than two, with the western continuation of the crypt being conceived as an under-church, and completed before work was initiated at first floor level. This view of events conflicts with the clear evidence in the first consecration document that three altars were already in place by 1009, but this does not specify their settings: although contrary to normal practice, these could initially have occupied the apses of the crypt, with two later being moved to their current locations in the upper church and tower chapel. Another possible solution to the problem might be inferred from the eastward shift in the siting of the later building, the apses of the upper church lying beyond and slightly to the south of those of the crypt. This would have allowed the first master-mason to follow the precedent set at Saint-Michel de Cuxa, and create an envelope around the sanctuary above the crypt and the base of the tower without interrupting the routine of the monastery. If either of these propositions were indeed the case, there is nothing to preclude the body of the upper church having been the work of a second master-mason.

Another argument against there being a radical change in the conception of the building centres on the presence of Sclua, the named 'architect' of the project, throughout the period of its construction. However, his being elected abbot of the community in 1014 may indicate the point where he ceded responsibility for completing works that were then at a standstill. The evidence for a temporary halt is circumstantial, being largely based on discontinuities in the structural skeleton of the complex, and the delay before it was finally consecrated. However, one possibility that cannot be ignored is that the hiatus was caused

by the need to recruit a new master-mason, and that the appointment was made after abbot Oliba's second visit to Rome in 1016. If this were the case, the prospect of his being a craftsman imported from northern Italy must be borne in mind.

Two linked factors support an interpretation of the under-church as marking an interregnum between the death or infirmity of the original master-mason and the engagement of a more gifted replacement. The first is the discordant note struck by the structural skeleton, which shows none of the finesse encountered elsewhere in the complex, and reinforces the view that it was entrusted to a local mason at a period when there was no more competent craftsman on site. Comparison with the upper church, where the interval between the support columns is more than double that of the piers in the under-church (\approx 3.4m and \approx 1.5m respectively) and the transverse arch all but discarded, serves to emphasise the different appreciation of statics visible in the two sections of the building [143-146].

The specification for the work thus appears primarily to have been aimed at providing a level platform for a future development. As an under-church devoted to religious services it was of questionable value, much of the newly-created floor area being rendered dead space by the overlapping piers of the arcades. The visual interaction between celebrant and congregation required by the Roman liturgy was particularly compromised in the case of the side altars, where only a limited number of participants would have had sight of the apse. 541 The lack of direct access from the upper church is also significant in hampering the circulation

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This in contrast to Visigothic practice, where key moments of the Mass were shielded from the congregation: see Mundo, 1972: pp.29-42. The problem of narrow vessels and restricted sight lines was addressed in later modifications to First Romanesque churches: for example, at Sainte-Marie de la Cluse Haute, where the eastern pillars of the nave arcades were removed. At both Saint-Paul de Py and Saint-Vincent d'Eus (below), a similar motive dictated the size of the archways linking aisle and nave immediately in front of the main altar.

of pilgrims or ritual processions. This may have been a factor in the decision not to use the crypt to house the relics of Saint-Gaudérique following their translation to the abbey in 1014, a chapel designed for the purpose being grafted onto the southern apse of the upper church.⁵⁴²

The second anomaly is the lightness of touch which emerges from the design of the support structure of the upper church, and the harmony of its constituent parts. The aisled nave is divided at its mid-point by a span of transverse arches, the arcades to either side supported on columns and capitals resembling those employed in the crypt, but believed to have been sourced locally and carved on site. The narrow diameter of the columns (\approx 30 cm) and the intervals between them (\approx 3.4 m) contribute to the open aspect of both compartments, making much of the ritual accessible to members of the lay congregation stationed at the western end of the building.

Apart from bearing on poorly supported areas of the platform, the insubstantial nature of the arcade columns and the interval between them are consistent with their having been intended to support the lesser load of a wooden roof. Further evidence that vaulting was not originally contemplated emerges from the series of transverse arches set midway along the church. Rather than being positioned immediately above the masonry buttressing the crypt arcades as depicted by Puig, these are sited further to the west and again rely on the barrel-vaulting below for their support [136]. Furthermore, photographs taken prior to the renovation of the abbey show cruciform pillars where a substantial section of the pilaster facing the aisle has collapsed, leaving no evidence of sporadic or block bonding with the

The internal floor space - \approx 5.5m long by \approx 2.4m wide – may give some indication of the size of the community during this period.

Ponsich, CR 7: pp.331-32

masonry core.⁵⁴⁴ These lateral projections may therefore have been grafted onto piers raised to brace an A-frame positioned at the most critical point of a wooden roof, and designed to reduce the length of the purlins.⁵⁴⁵ If this was the case, the transverse arches linking the piers may have been added primarily to support the formwork of the vault rather than dissipate its load: by subdividing the area to be covered, work on each section could be carried out in a continuous process, thus minimising the risk of differential settlement.

The risk of deformation or collapse of the structure was enhanced at Saint-Martin by the method chosen to counter the thrust of the vaults. In a pattern characteristic of a number of Romanesque 'hall-churches', the aisles were raised almost to the height of the nave, and covered by barrel vaults set at a slightly lower level than that of the central vessel. However, by dispensing with the regular transverse arches which are prominent features of the design, the master-mason compounded the practical problems of vaulting both nave and collaterals. Interposing a mass of masonry between the nave and aisle vaults to complete a plane surface to receive the roofing tiles may have dampened the stresses imposed on the lateral walls, but had the deleterious effect of increasing the loading on the arcade columns and their underlying support. S47

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Puig i Cadafach, 1909-18: v2, *fig.* 407, p.478. Cf. Vergnolle, 2009: *fig.*9. Repointing of the interior of the church has obscured the vertical joints between the arms of the pillars, leaving no sign of how these originally interlocked.

The opinion that the upper church at Saint-Martin du Canigou was designed with a wooden roof in mind has been expressed in Bonnassie, 1975: p.484. Widespread deforestation in Northern Italy, leading to a dearth of mature trees as a source of suitable structural timbers, has been suggested as the driving force for the adoption of transverse arches in the traditionally wooden-roofed churches of the area: see Porter, 1917, v.1, p.93. Cf Brutails, 1975, pp.14-15, for evidence of encroachment on the natural forest cover of Conflent prior to the 11th century; also Brutails, 1901, p.33, for opinion that transverse arches were an innovation imported from outside the region by the Benedictines.

Fernie, 2014: pp.115-16. Saint-Martin is suggested as a possible model for a group of hall-churches in Poitou and Saintonge. Also Francastel, 1970: pp.100-101. The attribution of these buildings to a distinct 'Poitevin' strand of architecture by exponents of the Regional Schools theory is dismissed, the grounds cited being that parallel barrel vaults were a feature of Anatolian churches prior to the 11th century, and cannot therefore be considered a First Romanesque innovation.

Stalley, 1999: pp.110, 136-138. The potential instability of the structure is illustrated by the Colegiata del Sar at Santiago de Compostela, where the perimeter walls had to be strengthened with massive buttresses to prevent its collapse.

No reinforcement, either internal or external, was applied to the lateral walls to counter the thrust of the vaults, these being raised in the traditional manner of two skins of random stonework enclosing a rubble core, and not exceeding one metre in thickness. In the light of subsequent practice in Conflent, where the belated vaulting of First Romanesque churches invariably involved the addition of internal arcading to nave walls of comparable dimensions, 548 the failure to strengthen those at Saint-Martin is clear evidence that the master-mason was working at — or perhaps beyond - the limits of accepted practice. However, the method chosen for the construction of the vaulting suggests that he was aware of the danger of overloading the supports, and reduced its weight by using a single course of thin, interlocking 'blades' of schist or granite. Arranged radially, these ensured near-parallel contact surfaces bonded with a minimal amount of mortar, and the indented ends of individual 'rings' allowed consecutive sections to be knitted together without differential settlement inducing continuous stress fractures across the width of the vessel.

Wherever the ultimate responsibility lay, the decision to vault the entire church at such an early date must have played a pivotal role in encouraging similar practice elsewhere in the region. Significantly, in the monastic dependencies and community churches where barrel vaults were installed, and throughout the Romanesque period, the same system of using thin blocks in roofing the building remained prevalent. The 'rustic' label sometimes attached to such vaults rests on comparisons with areas where good quarried stone was available, and gives no credit to masons working with inferior materials.⁵⁴⁹ Regular dressed blocks certainly allowed improved bonding and a lesser reliance on mortar of questionable

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Below, pp.217-18.

Viollet-le-Duc, 1873: v.4. 'Construction', p.7-8.

quality, but these advantages were not exploited in the Pyrenean interior before the mid-12th century.550

Despite the manifest problems presented by the local geology, pains were nevertheless taken to select or shape blocks of gneiss or granite for use in the critical parts of the structure at Saint-Martin. For example, the transverse arches of the lower church are characteristically organized – in both sections of the building – such that the voussoirs increase in size towards the centre of the arch [143].⁵⁵¹ The recurrence of the configuration in neighbouring 11th century rural churches is sufficiently widespread to merit it being considered diagnostic of First Romanesque practice throughout the region.

There is a noticeable disparity between the treatment of these structural members and the random masonry preferred for much of the fabric of the structure, although those exterior surfaces of the eastern elevation usually considered part of the first build are partially composed of regular courses of material graded midway between petit and moyen appareil [134]⁵⁵² Elsewhere the perimeter walls are less meticulously constructed, a not unusual practice in First Romanesque churches, where extra resources and more competent craftsmen were directed to those parts of the building which had particular significance. 553

In Burgundy, the earliest appearance of dressed stone, laid in even courses with consistent bonding, is so closely associated with the supports of the vault that it has been suggested that an evolution in the techniques of stone-working was prompted by the introduction of this means of roofing. A shift from the use of the polka, with two blades on opposing axes, to the marteau taillant, whose twin blades were aligned with the shaft, has been linked to this process by Christian Sapin (1998) op.cit. p.181. However, this view runs counter to that of Jean-Claude Bessac, who places the introduction of such tools later in the medieval period: see Bessac, 1993. For the subsidiary role of mortar in arch and vault construction,

Durliat, 1989: p.215. Specific reference is made to improved stone-working in Catalonia at Sant Pere de Rodes and during the pre-Romanesque phase of Saint-Michel de Cuxa.

It must be borne in mind that significant sections of the lateral walls of the upper church were rebuilt during its early 20th century restoration, the lower church having survived largely intact.

Porter, 1917: v.1, pp.29-32.

The lower level of the complex is poorly lit by four small openings with a pronouced double splay piercing the southern wall of the building: that one is located in the southern lateral apse confirms that the master-mason responsible for the crypt was familiar with First Romanesque practice. More adequate provision is made in the upper church, with windows of similar style being sited in the apses, the aisles and the gables to the nave. A degree of care is taken in forming the arched heads to the apertures, but the reveals are not distinguished from the background fabric by dressed stone blocks. A similar lack of sophistication extends to the principal entrance to the complex, which is located in the base of the tower: here, however, an *arco bardellonato* - a series of elongated blocks laid as stretchers - frames the extrados of the voussoirs of the arch [135]. Immediately above the entrance, the apse of the first-cloor chapel dedicated to Saint Michael is contrived by corbelling out from the background fabric.

Terracing of the site effectively obscured the crypt and under-church, leaving only the fabric of the upper church a visible canvas for Lombard decoration. On the exposed chevet, the surface treatment of the central and side apses (but not that added to house the relics of Saint-Gaudérique) comprises a single panel with a simple arched corbel table between two narrow framing pilasters. The central apse dominates the façade, being broader and appreciably taller than its neighbours, with a prominent axial window set immediately below the arcading. The arched corbel tables are traced by small blocks with wedge-shaped consoles at their free ends, and support several courses of masonry under a projecting cornice of regularly-squared blocks [134].555 The pared-down nature of the decorative

The window embrasures of disaffected churches in Conflent show no signs of having been rebated to receive a wooden frame, and whether they were closed against the elements by means of glazing or shutters is uncertain. Palau del Vidre (*Rosselló*) was a centre of glass-founding in the 13th century, but there is no evidence that the industry existed during the First Romanesque period.

This detail cannot be considered original, the apses having been re-roofed as part of the 19th century restoration.

scheme adopted at Saint-Martin contrasts with contemporary practice in northern Italy and Burgundy, where more complex articulation of the chevet was already being achieved, and Lombard panelling applied to other elevations of the building.

There is no decoration on the lower part of the tower, although this is by no means unusual in First Romanesque churches. The upper stories are assumed to have been completed after the second consecration in 1026, and are distinguished by pilaster strips and arcaded panels pierced by openings arranged in a pattern common throughout Catalonia: the single round-arched examples of the lower level are replaced by wider, twinned openings at the summit, with turned columns under plain capitals in the form of elongated triangles extending across the thickness of the wall (*chapiteaux béquilles*) [135]. Damage inflicted by a severe earthquake in 1428 may have deprived the tower of a fourth storey, and explain the two simple openings in the rebuilt upper section of the south face. It is also possible that this event prompted the strengthening of the crypt pillars which, as noted above, seems to have had only marginal significance in supporting the construction of the upper church.

The style of masonry used in upper stages of the tower contrasts with that found elsewhere in the church: the background fabric is raised in uniform *petit appareil*; the arches of the twinned openings are constructed of regular shaped granite voussoirs; and the arris of the pilaster strips is sharply defined. The greater attention to detail appears to have been dictated by the prominence of the tower, the finer architectural detailing being limited to the more visible – east and north – faces of the structure.⁵⁵⁸ It does, however, emphasise the

Bailbe, 1989: p.26ff. The dressed components are of local granite, and of contemporary manufacture. The crenellations were added in 1433, during the war between the kingdoms of Aragon and Majorca.

Ponsich, *CR* [7]: pp.333-34.

Bailbe, 1989: appendix, Plan 1. Piers were substituted for columns and capitals in the twinned openings of the other elevations.

improvement in stone working techniques which occurred during the first quarter of the 11th century, a point which has a bearing on the masonry practice of masons engaged at other sites in the county.

<u>Saint-Michel de Cuxa</u> [E3]

The uncertainty about the degree to which Oliba directly influenced the work at Saint-Martin du Canigou - either as an adviser to his brother, Count Guifred, or as *de facto* abbot of the foundation – does not extend to the modifications undertaken at Saint-Michel de Cuxa during his abbacy (1008-1046). Unlike his approach to the rebuilding of Santa Maria de Ripoll, Oliba was minded to retain much of the existing structure of Saint-Michel whilst adding to its prestige and improving the circulation of pilgrims attracted by its many relics. The order in which the two major modifications to the church were undertaken is assumed from their position in Garsias' text, where a description of the ambulatory chapels behind the main altar precedes that dealing with the more substantial western rotunda: these schemes are generally dated to the period 1010-1035 [50]. Sol. Sol.

A working hypothesis for the alterations to the chevet envisages two stages: firstly, the enclosure of the space between the main and side apses, thus allowing the repositioning of two alters previously sited at the extremities of the transept arms; secondly, the later opening of three new oriented chapels off a transverse passage behind the original sanctuary and connecting with the lateral corridors, only the southern one remaining unaltered [58]. 561

Ponsich, 1989. The retention of Garin's church is seen as a mark of respect for an individual who played a pivotal role in forming Oliba's outlook on both political and religious affairs: Garsias is noted as having listed over eighty relics held at Saint-Michel during Oliba's abbacy, but does not mention when or by whom they were acquired. As the disinterment and translation of the remains of saints was sanctioned from the 8th century, these could have been obtained at any time after the initial establishment of the community at Eixalada. See Van der Ploeg, 1993, pp.9-10

Inspiration for such a ground plan is thought to derive from Sant Pere de Rodes, where an ambulatory (although without radiating chapels) was an innovative feature of the chevet of the church consecrated in 1022.⁵⁶²

The scale of the western rotunda and the two flanking towers to the transept arms far surpasses that of the alterations to the chevet, and betrays a greater desire to enhance the prestige of the complex. Garsias' concentration on the symbolism and internal disposition of various components of the structure omits any detail of the external appearance of the rotunda, a deficiency not mitigated by extant documentary or archaeological evidence. The southern elevation of the lower level does, however, retain the shallow panels and dividing pilasters of typical Lombard style, set above a base of plain walling rising approximately 1 metre above ground level. It must be assumed that such an arrangement originally included arched corbel tables at the heads of the panels, and that the division between the two stories possibly included more elaborate ornament similar to that later applied to the towers.

The interior fabric of the lower section of the rotunda (Crypt of the Nativity or *Pessebre*), including the central supporting pillar, is also of *petit appareil* laid in regular courses [61-63]. The overall design is of great simplicity, comprising a circular chamber ≈8.3m

Durliat, 1989. The consecration charter of 1022 relates only to the chevet and transept of the church, which are considered typical of late 10th century practice in Catalonia. The ambulatory lacks radiating chapels, and may thus have been based on north Italian models, Santa Maria Assunta, Ivrea (Piedmont) and Santo Stefano, Verona, being suggested. The construction of the nave is dated to the 1030s, but departs from First Romanesque tradition by employing superimposed, free-standing columns to support the transverse arches. Sculpted capitals – of Corinthian form, or decorated with interlace – are interpreted as deriving from the work at Saint-Génis des Fontaines and Saint André de Sorède, north of the Albères. Cf. Immaculada Lorés Otzet, 'Sant Pere de Rodes. Consideracions sobre la cronologia de l'església', *Actes del Congrés Internacional Gerbert d'Orlhac i el seu temps: Catalunya i Europa a la fi del 1r mil.lenni*, Vic-Ripoll, 10-13 de novembre de 1999. The ambulatory has alternatively been considered a ring-crypt based on the configuration found in the cemetery churches of Rome (San Sebastiano, Sant'Agnese), and later adopted by Carolingian architects: see Stalley, 1999, pp.27, 150. Also, Fernie, 2014: p.106; the near-contemporary example of Saint Michael's, Hildesheim, is cited.

A surviving plan of 1779 shows that upper levels of the rotunda had already been demolished by that date: *CR* 7, pp.370, 373.

in diameter with a small eastern apse, the whole being set in a rectangular mass of masonry supporting the Trinity Chapel above. Impressions of the original lag boards are preserved throughout the complex, and reveal that the vaults were raised directly on formwork, rather than on an earthen or clay mould. Set to either side of the crypt are oriented chapels dedicated to the protectors of the Virgin, the archangels Raphaël (north) and Gabriel (south).⁵⁶⁴ These are linked to the east by a transverse passage which precedes the underpinning of an atrium which was located between the upper storey of the rotunda and the west door of the abbey church [64].

The symbolic links between the Pessebre crypt and the Church of the Nativity in Bethlehem are clear, and its design required no direct knowledge on the part of Oliba: as the principal pilgrimage site in Christendom, its description would have been common currency within the Benedictine community. However, visits by the abbot to Rome in 1011 and 1016 imply first-hand knowledge of the Pantheon, the epitome of centrally-planned structures, and the crypt of Santa Maria Maggiore. He would also have been aware – through personal communication – of the emphasis placed on the west end of the abbeys of both Cluny II and Fleury, the atrium of the former perhaps influencing the decision to separate the new complex from the main body of the church. At Cuxa the melding of features from a number of sites underlines the propensity for medieval architects to select and redistribute components of iconic buildings to suit specific purposes. In particular, the niches frequently associated with centrally-planned structures linked to the Marian cult are

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Palazzo, 1999. Cf. Christian Sapin, 1996: the separation of chapels dedicated to the Virgin from the main body of the church is noted as a phenomenon which gained in popularity during the early 11th century.

This is the model favoured by Pierre Ponsich: see *CR* 7, p.376.

Pascale Bourgain, 'La personnalité littéraire d'Oliba', *SMC* [40] 2009: Oliba's contacts with abbot Gauzlin of Fleury are known from his correspondence. Also, Uhde-Shtal, 1977: work commenced on the 'tour-porche' at Fleury in ca.1026, the building as originally conceived also being separated from the church by an atrium, which was the case at Cuxa.

Richard Krautheimer, Studies in Early Christian, Medieval and Renaissance Art, London & New York (New York University Press) 1969, pp.107-14

neglected in the crypt, only to reappear in the Trinity Chapel. A departure from the circular ground-plan is also evident, with the internal space of the upper storey tracing the shape of a mandorla, and the apse being flanked by two triangular recesses [65,66].

In structural terms, there is little novelty in the means of support underpinning the Trinity Chapel: the circular plan of the Pessebre crypt and its central column are reminiscent of the configuration found at a number of Marian monuments; the side chapels include prominent recesses at the summit of the lateral walls to support the formwork of the vault, identical to those of the previous century found in the rectangular apse at Saint-Michel de Sournia; and the eastern section, below the atrium, comprises a series of transverse arches set on cruciform pillars similar to those of the under-church at Saint-Martin du Canigou.

However, the lack of information on the architectural detailing of the upper horizons of the rotunda hinders an understanding of the extent to which certain innovations prevalent in areas south of the Pyrenees were imported into Conflent, and of the likely provenance of the master-mason employed at this prestigious site. As a centrally-planned building, the western complex at Cuxa was one of a number of locations associated with Oliba where a dome may have been the preferred means of roofing the space. If this were the case, it would mark the presence in Roussillon of a feature considered by Puig to be crucial evidence of the link between Catalonia and northern Italy. Significantly, another Marian rotunda formed part of the 11th century cathedral complex constructed by the abbot at Vic, and opens the possibility that the two buildings were ultimately the responsibility of the same mastermason. Santa Maria la Rotunda was demolished in 1787, and the cupola over the crossing at Ripoll remodelled during Elies Rogent's 19th century renovation of the church, leaving no

evidence of Oliba's possible role in introducing this element of First Romanesque architecture into the region.

Another modification apparently contemplated by Oliba at Saint-Michel de Cuxa, but never completed, was the vaulting of the nave, although this could be a misinterpretation of the physical evidence. An abrupt transition in the fabric on the exterior walls of the aisles marks their having been raised and furnished with half-barrel vaults during Oliba's abbacy, as does the precision of the masonry framing the 'keyhole' windows, where an *arco bardellonato* shadows the extrados of the primary arch [59]. Whether this presages a serious attempt to install a longitudinal barrel vault is doubtful, however. The width of the central nave, at ca.9 metres, is almost three times that at Saint-Martin du Canigou, and the construction of a vault – and especially one unsupported by transverse arches - would have taxed the competences of the most gifted contemporary master mason. The height of the clerestory also argues against this theory, as the reinforcement to the nave walls provided by the half barrels of the aisles is concentrated well below the spring line of a nave vault.

The failure of Garsias to record the towers at either end of the transept is taken as proof that their construction took place after the death of Oliba in 1046.⁵⁶⁸ The height of the remaining example, the Lombard panelling and tiered arrangement of its openings thus stand witness to the craftsmanship of mid-11th century masons [67-69]. In terms of scale, it represents the most ambitious of the First Romanesque additions to the complex, and one requiring a considerable degree of theoretical, as well as practical knowledge to build.⁵⁶⁹ It

Several variants in the surface treatment of church towers in Catalonia, all presumed to have been derived from Lombard models, are cited in Bailbe, 1990. The 'Cuxa-Canigou' group are distinguished by the broad pilaster strips at their angles, the treatment of each storey as a single panel surmounted by a continuous arcade, and the arrangement of the pierced openings. The latter are typically absent in the lower levels, single in each face of the middle levels, and twinned in the upper stories.

The tallest extant example in Catalonia is the 'Tower of Charlemagne', all that remains of the Romanesque cathedral of Girona.

thus marks the continued presence on site of a gifted master-mason, and a chapter determined to honour Oliba's conception of the finished building. The overall design, which is repeated with minor variations at other monuments in Catalonia, involves a progressive reduction in weight towards the summit of the tower, which is achieved by substituting twinned openings in the upper levels for the single ones of the lower stages. The intention may also have been to reduce the wind resistance of the structure, but this at a period when the funnel effect and the destructive potential of turbulence were unrecognised. These may have been instrumental in causing the northern tower, weakened by decades of neglect, to collapse during a violent storm in 1839.

A comparison with Sant Pere de Vic suggests that at Cuxa the masons were hampered by the materials at their disposal, which seemingly inhibited a more widespread use of external ornament [118,119].⁵⁷² Cog moulding, for example, is restricted to the division between the second and third floors, the only demarcation between the other storeys being the arcading at the head of the recessed panels which articulate each face of the tower. Fashioned from small blocks of local stone, the feature lacks the definition achieved at number of 11th century churches in the vicinity of Vic – for example, Sant Vicenç d'Espinelves, Sant Esteve de Tavernoles, and Sant Vicenç de Torelló - where more easily-worked sedimentary material was available. It does, however, constitute the earliest verifiable appearance in Conflent of a motif more generally associated with the aesthetics of the Second Romanesque style.

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The continuing existence of a large number of Catalan bell towers demonstrates that these measures generally proved effective. Those at Cuxa survived the earthquake of 1428, for example, but the northern tower succumbed during a storm in 1838 after several decades of neglect.

Mallet, 2003: p.194.

Bailbe, 1989: p.27ff. The upper levels of the tower are thought to have been completed after the consecration of the main body of the church, and may thus be approximately coeval with the transept towers at Cuxa.

Sainte-Marie de Corneilla-de-Conflent [E4]

The settlement of Corneilla-de-Conflent was the site of one of the principal residences of the counts of Cerdagne from the late 10th century until control of the area passed to the comital house of Barcelona in 1117, and also the putative birthplace of abbot Oliba. ⁵⁷³ Although first mentioned in 1018, the parish church only came into count Guifred's possession in 1025, when it was exchanged for its counterpart at Escaro. ⁵⁷⁴ The condition of the original building is unknown, but it is generally assumed to have been renovated or remodelled immediately after the transfer, which would make the works contemporaneous with those at Saint-Michel de Cuxa. Given Guifred's co-option of his brother in assuring the foundation and construction of Saint-Martin du Canigou, it might reasonably be assumed that a similar degree of collaboration extended to the works at Sainte-Marie ⁵⁷⁵.

Apparently conceived *ab initio* as an aisled basilica of imposing dimensions, details of the greater part of the original structure were destroyed when the church underwent extensive modification after its transfer to the Augustinians in 1097. The introduction of vaulting throughout the church in the 12th century may have significantly altered its profile, with a single-pitch wooden roof to either side of the building being abandoned in favour of a central vessel rising perceptibly above the aisles [150-155]. On the other hand, the clerestory is of such restricted height that it could well have been a feature of the initial phase of construction, where the design echoed on a reduced scale that of Saint-Michel de Cuxa. The configuration of the chevet of the early church, which might have shed light on the relative

Eduard Junyent, 1971: p.3.

MH Base Mérimée PA00104007 (designated 1840).

⁵⁷⁵ *CR* [7]: p.401. Although first mentioned in 1047, the comital palace was built in the 10th century, and has been proposed as the birthplace of Oliba. Its proximity to Cuxa enabled Guifred to maintain regular contact with his brother at the time of Sainte-Marie's renovation.

dimensions of its constituent vessels, is also unknown, as the whole east end of the building was remodelled when the vaulting was installed. By the same token, other openings in the early fabric – the north and south doors, and the windows of the south aisle - appear to have been inserted at a similar date.

The exposed masonry which survives of the 11th century (or earlier) structure indicates an increasing degree of sophistication being demanded of the masons as work progressed, with the evenly-coursed blockwork of the tower contrasting with the more random appearance of the aisle walls. Tooling marks preserved on the masonry of the north elevation confirm that a semblance of uniformity was imparted to the wall surface prior to its being lime-washed; as this practice is generally thought to reflect local Pre-Romanesque traditions, the fabric here could relate to the pre-1018 building. However, the external detailing of the three windows of the north aisle confuses the issue: here the reveals exhibit the pronounced external splay associated with First Romanesque practice, but the ill-defined horseshoe profile of the heads echoes an earlier tradition [154].

The base of the tower is integrated with the First Romanesque phase of the building, although it may not have been completed until the end of the century.⁵⁷⁶ It is of a pattern found at several other sites in Conflent, where the upper storey is pierced on each of its faces by a single, round-arched opening: unique to Sainte-Marie, however, is the precisely defined keyhole shape and exaggerated external splay of the twinned openings immediately below [157].⁵⁷⁷ Identical recessed panels set between prominent angle pilasters adorn all but the lower level, each surmounted by a corbel table composed of five shallow arches supported

⁵⁷⁶ Bailbe, 1989: pp.44-46.

Ibid, pp.31-35 A tentative dating to the period 1045-1070 has been proposed for the three other examples found north of the Pyrenees. These are at Prats-Balaguer, Ria and Odello (*Cerdagne*) and all were under the control of Saint-Michel de Cuxa during the 11th century.

by wedge-shaped consoles. The decorative scheme and regular coursing of the masonry of the tower is certainly more representative of the mid-11th century than the rest of the original building, and suggests that Lombard influences were belatedly applied to a church already in the course of construction.⁵⁷⁸ The structure encroaches on the western bay of the south aisle, and may have had been conceived as part of the defences of the adjacent comital palace, where a round tower of 11th century appearance survives [156].

Chapels and parish churches of the Canigou massif

The construction boom which marked the first half of the 11th century involved the founding or rebuilding of a network of parish churches in the more important settlements within the county. Two of these, Saint-Paul de Py and Sainte-Eulalie de Fuilla d'Avall, are known to date from the crucial period which included the final phase of work at Saint-Martin du Canigou and the completion of Oliba's rotunda at Saint-Michel de Cuxa.⁵⁷⁹ Both buildings include a number of diagnostic First Romanesque features, and hence allow the relative importance of 'system' and 'style' to be evaluated in churches performing a different function to those of the grand monasteries. Moreover, in the case of Sainte-Eulalie the context is expanded to include a monument sponsored by the community, a factor of considerable significance when gauging the reception of the style by the population as a whole.

However, the case for privileging the churches of the Canigou massif in the present study is justified not only on chronological grounds, but by their being constructed from material derived from the least workable materials found in the region. As intimated in the

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⁵⁷⁸ CR [7] p.406.

Uhde-Shtal, 1977: the date is broadly fixed between Oliba's first visit to Rome in 1011 and Garsias' description of the work in ca.1043. The author tends to agree with Puig that the rotunda is representative of the 'golden age' of First Romanesque architecture in Catalonia, which would place its construction in the 1030s.

introduction, the willingness of local masons to contemplate the use of vaulting or the application of Lombard ornament in such circumstances is considered a crucial factor in assessing the appeal of the style. It is also the region where a shift from traditional building methods had the greatest impact on the infrastructure established in the 10th century. The relevant churches will therefore be considered on a case by case basis, with an emphasis being placed on their common features, and their potential role in influencing events in the other geological environments of Conflent.

The earliest parish church bearing the First Romanesque imprint located on the massif is that of Saint-Paul de Py, consecrated in 1022 [D6].⁵⁸⁰ The steep gradient of the chosen site had a considerable impact on the arrangement of its internal spaces [158,159]. Upslope, the earliest part of the church comprises a barrel-vaulted nave which varies in profile either side of a prominent semi-circular arch. The section to the west, both taller and wider than its eastern counterpart, is considered the earliest part of the building [160]. Despite the slightly-pointed profile of the vault being atypical of early 11th century Catalan churches, it is thought to be an original feature, and one perhaps owing more to Umayyad than Benedictine influences.⁵⁸¹ The nave is presumed to have ended in a semi-circular apse, but this was later replaced by one of rectangular ground plan. The fall in ground level was turned to advantage by the construction of a crypt alongside the south wall of the nave, and extending either side of a centrally-placed tower, with the space above forming a collateral at the east end of the church but a simple enlargement of the nave to the west. The consecration charter

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Appendix Q.

Above, p.171.

references the two Pauls to whom the altars in the upper church and crypt were dedicated, thus suggesting that both vessels were completed by this date.⁵⁸²

Analysis of the fabric suggests a more complex phasing of the project, however, with the base of the tower marking an intermediate stage between the construction of nave and collateral. Although lacking in Lombard ornament, the masonry here is typical of First Romanesque work, and there is no dispute that it formed part of the building consecrated in 1022. However, a marked discontinuity in the coursing of the south wall demonstrate that its western extension abutted a pre-existing structure; moreover, the crypt extends through corbelled arches in the base of the tower, their makeshift appearance supporting the view that they were a later modification rather than a feature of the original build. [161,162]. 583 Perhaps the most telling sign that the nave was lengthened at some point after the consecration of the church is the truncated pier projecting from the north wall of the nave, this being aligned with the western face of the tower and logically sited to mark the northwest angle of an earlier vessel. Evidence that this second programme of work probably followed immediately on the first is provided by the Lombard ornament incorporated in the masonry of the south wall, which is known from Fuilla to have spread to the lateral walls of the nave by the early 1030s.⁵⁸⁴ An unavoidable corollary of this interpretation is that the two-centred vault must have been installed as part of the later work, and supported to the east by a newly-constructed arch set midway along the original nave, with a barrel vault retained in the section immediately adjacent to the apse.

Appendix Q, I.8; CR [7], p. 480: the principal altar was dedicated to the Apostle Paul, that of the crypt to the first bishop of Narbonne (mid-3rd century).

These are obscured by render, but are corbelled rather than being formed of radial blocks. A similar result would be achieved by cutting through an existing wall and making good the arch outline.

Below, p. 201*ff*.

The location of the church and the complex geology of its surrounding area has a considerable bearing on the method of raising fabric adopted in Conflent during the early decades of the 11th century. The site is underlain by the heavily metamorphosed rock of the massif, although isolated pockets of lightly deformed schist and marble typical of the Fenouillèdes outcrop on the fringes of the Canigou leucogranite east of the Py-Mantet fault. This is the earliest church in the county where the stone is consistently graded to produce petit appareil: the masonry of the southern vessel exhibits horizontal bedding with little discrimination in the use of materials, granite and gneiss oeillé being distributed in random fashion throughout the wall, with the occasional inclusion of micaschist and quartzite. The rounded surfaces of much of the stone reveal its having been derived from the local watercourses, and possibly 'hammer split' to furnish blocks of suitable dimensions. There are indications, however, that the masons sourced, selected or fashioned particular types of rock for certain components of the building. For the pilaster strips, material with a natural or modified square end was preferred in erecting a vertical arris, and the arch of the south doorway is delineated by granite blocks of regular height which, in some instances, appear to have been deliberately shaped.

In contrast, the arched corbel tables at the head of the panels set in the south wall lack sophistication, with their profile being roughly traced by small, irregularly bedded stones rising from poorly defined consoles. To some extent this is the result of the passage of time, as some of the blocks are of tufa which would have been accurately cut, but which has since been eroded. An area of disturbed stonework in the centre of the western panel appears to mark the site of a window opening, but whether this was an original feature or a later modification is unknown. The panel surrounding the entrance to the church is atypical in

having its two corbel arches supported centrally by a vertical series of projecting blocks extending down to the keystone of the door opening.

More unusual decorative elements occupy prominent positions towards the base of the tower. Two 'plaques' of wedge-shaped stones arranged in a whorl are set either side of the lancet, each with a central boss of white marble: the one to the east still shows traces of its original carving in the shape of a human head, and two further sculpted heads are isolated in the masonry towards the tower corners. Whilst the decorative arrangement of the blocks has precedents in Lombardy and may represent First Romanesque practice, ⁵⁸⁵ the figurative work is generally thought not to be original but inserted in the fabric during a later programme of renovation. ⁵⁸⁶

The upper stories of the tower are obscured by render, but vestiges of the recessed panels which originally surrounded the twinned openings at its summit survive. These are reminiscent of the configuration at Saint-Martin du Canigou, but there are no signs that pilaster strips or banded ornament were included in the design. For these reasons a date in the mid-1040s has been suggested for this section of the structure, but there are no comparable examples in Conflent to corroborate this view. 588

The scale and spatial organisation of Saint-Paul are unusual for an upland parish church in Conflent, but are perhaps explained by its being a dependency of Sant Pere de Camprodon, and sited in an important iron-mining area.⁵⁸⁹ Sant Pere was one of a group of

Mallet, 2003: p.223.

⁵⁸⁵ *CR* [7]: p.481.

The prominent strips of replaced render on the south elevation are due to the later the insertion of iron cross ties rather than the cutting back of projecting masonry courses.

⁵⁸⁸ Bailbe, 1989: p.47ff.

⁵⁸⁹ CC, p.383 entry 444: transferred to Camprodon in 966 under the terms of the will of Sunifred II.

foundations that looked to abbot Oliba for guidance,⁵⁹⁰ and its mentor was accompanied at the consecration by two members of his family: his brother, count Guifred II, and nephew, Guifred, archbishop of Narbonne. Despite the interest evinced in the building by members of the comital house, there is nothing in its design, decoration or means of construction to suggest that it was beyond the capabilities of indigenous masons, the only proviso being that these may have been seconded from Camprodon or Canigou.

The slightly later parish church of Sainte-Eulalie de Fuilla d'Aval [D4] enjoyed neither comital nor monastic patronage, and is thus illustrative of the architectural ambitions of the local community that funded its construction.⁵⁹¹ In contrast to the church at Py, where later additions and alterations obscure many of the original features, Sainte-Eulalie has survived largely untouched [163-166]. Its site at the northern end of the Riotja valley occupies a level platform west of the river which is raised slightly above the prevailing terrain. The earliest church predated a charter drawn up in 906 confirming its control not only of the lower part of the Riotja valley but of the neighbouring parish of Campilles, which extended over the south-facing hillside on the opposite bank of the Têt.⁵⁹² The present Sainte-Eulalie, consecrated in 1031, was built 'by the population' to replace the original church, and provided with ground for a cemetery.⁵⁹³ A castle or fortified manor house was erected against the north wall of the church at a period some time after its consecration; by the 12th

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Junyent, 1971a: the others cited are Sant Pere de Rodes, Besalù, Serrateix, Banyoles and Casserres.

MH Base Mérimée PA00104032 (designated 1965); Appendix R.

Abbé A Cazes, 'La vallée du Rojà', *Conflent* (Guide touristique), Perpignan, 1989. The parish of Campilles is presumed to have been based in the Têt valley on the site now occupied by Villefranche; see B Alart, *Cartulaire roussillonnais*, Charter XVI (dated 980), pp.31-2. The ruined chapel of Saint-Étienne de Campilles lies on the ridge immediately north of Villefranche

The impression that the building of the church was a true communal effort must be viewed with some scepticism. Studies of the extensive documentation preserved at La Seu d'Urgell have shown that this formula was frequently used in acts of consecration dating from the 9th and 10th centuries where the prime movers in the foundation of the church were either priests or leading members of the community. In the earliest examples, the villagers retained the patronage of the church, with its tithes and the right to appoint the priest, but these privileges were progressively annexed during the 10th century either by baronial families or monastic houses: see Bonnassie, 1991, pp. 243-51. By the 11th century the right to appoint a priest to a community church was either vested in the bishop or rested exclusively in the hands of the nobility.

century this stronghold of *La Bulella* perhaps included defences around the church itself and its adjacent cemetery, which had evolved into a *cellera* on the pattern of those more commonly found on the Roussillon plain.⁵⁹⁴

An aisled basilica of relatively modest proportions, Sainte-Eulalie nevertheless presents as typical of the mature phase of the First Romanesque style, being vaulted throughout, and constructed exclusively of *petit appareil* aligned in regular courses and with only minor variations in the size of the blocks. The cruciform pillars of the arcades support transverse arches to both nave and aisles: these reinforce a continuous barrel vault over the nave, and serve to divide the aisles into groin-vaulted compartments which are completed by projecting formerets on the lateral walls [167-172]. In the body of the church, the diagonals of the aisle vaults merge into the angle formed by the transverse arch and lateral wall in a manner consistent with early First Romanesque practice. In the bay immediately to the west of the northern lateral apse, however, one of the lines of thrust is grounded on an angular projection of the masonry, the extra detailing transforming the easternmost support of the nave arcade into a compound (or proto-compound) pillar.

In plan, Sainte-Eulalie exhibits features common to grander churches in medieval Catalonia as a whole, with the nave and aisles, each of four bays, leading directly to the three projecting apses of the chevet without the intervention of a defined transept [163]. The original doorway in the south wall, which opens into the second bay from the west, is somewhat eclipsed by a more imposing entrance in the western façade, this being surmounted by a large window set immediately below the vault. These appear to be later insertions, as their style of construction differs markedly from the other openings in the

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external walls. The windows currently opening onto the western ends of the aisles also postdate the initial work: that illuminating the north aisle pierces the west wall, whilst its counterpart for the south aisle is sited – rather incongruously – in the western-most panel of the south wall.

In elevation Sainte-Eulalie differs markedly from other aisled basilicas in Catalonia, with the nave rising significantly above the roof line of the aisles, and the clerestory walls being pierced by three tall, double-splay lancets.⁵⁹⁵ These are centered internally on the bays to either side of the south doorway and that immediately west of the chevet, and augmented by a cruciform light set above the centre line of the principal apse. The closest parallel in medieval Catalonia as a whole, albeit on a grander and more elaborate scale, is Sant Vicenç de Cardona, whose design has been linked to specific monuments in Northern Italy.⁵⁹⁶ However, this cannot have been the model for Sainte-Eulalie, the clerestory at Sant Vicenç now considered a later addition to a building where the original nave vaulting was raised only slightly above that of the collaterals.⁵⁹⁷

In seeking an alternative derivation for the configuration at Fuilla, attention might more profitably be directed to the disposition of volumes favoured by Garin at Cuxa, and the advanced understanding of statics applied in vaulting the upper church at Canigou. A logical combination of these two elements at Sainte-Eulalie would result in its being constructed in modular fashion, and thus reduce the probability that it required the input of a foreign master-mason, or reference to pre-existing models beyond the borders of Catalonia.

Although no scaled cross-section of the building is available, an approximate ratio of 2:3 between the height of the arcade and that of the clerestory seems appropriate.

Fernie, 2014: pp.56-57; the precedents given are Acqui Cathedral and San Fruttuoso di Capodimonte, near Portofino, both in the vicinity of Genoa. See also, Fernie, 2000: pp.243-256; the suppression of Moorish pirates on the French Riviera in 972 is seen as promoting the rise of Genoese maritime power and the reopening of traditional trade routes between Northern Italy and Catalonia.

⁵⁹⁷ Above, p.161.

Moreover, the period which saw the building of the church followed immediately on the completion of Saint-Martin du Canigou in 1026, an event which freed masons from the monastery for alternative employment. That an experienced member of the atelier was engaged at Fuilla is thus a strong possibility, and an eventuality to be borne in mind when considering neighbouring churches where vaulting was the preferred method of roofing the nave.

The extent and variations in the external decoration at Sainte-Eulalie correspond closely to the evolution of the style associated by Puig with the 1030s: not only does it extend beyond the chevet to adorn the other elevations, but the arched corbel tables at the head of individual panels reflect more complex sequencing than those associated with earlier periods. The most sophisticated work is still visible on a preserved section of the chevet, this unfortunately amounting to no more than one side of the central apse and a much defaced section of its northern neighbour [166]. Crucially, any application of decorative features at the eaves was destroyed during the construction of the adjoining residential property. It is nevertheless still possible to admire the care taken in raising the background fabric, which includes a greater proportion of regular squared blocks than used elsewhere in the envelope. The schema adopted for the Lombard decoration has to be extrapolated from what remains of the central apse, which unlike its neighbours, incorporates three window openings. A pair of pilasters arranged symmetrically either side of the axis organise the surface into three separate fields, with that at the centre being approximately twice the width of those to either side.⁵⁹⁸ Each arcade of the eaves corbel is centered on the median line of the window below, with their component arches being delicately traced in small, squared blocks set on projecting

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The infill between the two visible apses obscures further detail, but It is probable that the side panels were twinned, giving a sequence of 2:2:4:2:2 for the arches of the corbel table.

wedge-shaped modillons at their free ends. The windows have a pronounced external splay, and their semi-circular heads comprise voussoirs of equal height beneath a series of stretchers arranged to echo the curve of the arch below. The northern apse appears to have been constructed without pilasters, the corbel table thus forming an uninterrupted band at the summit of the wall, and the single, axial window being spanned by a simple semi-circular arch. Illumination at this end of the church was augmented by cruciform opening set in the gable of the nave above the roofline of the central apse, a detail now only visible on the interior of the building.

Symmetry is also the watchword to be applied to the southern elevation, where a central panel with a triple arcade is bordered to either side by a pair of wider fields with 5-arched heads, the one immediately to the west enclosing the south doorway [164]. Here the individual arches are narrower than those of the apse, and the arcades delineated by small blocks of tufa. In a departure from the pattern established at Saint-Martin du Canigou, the stretchers forming a secondary arch over the south doorway project from the plane of the wall in the form of a hood mould, a detail more frequently found in 12th century churches in Conflent [173]. The pilasters, which project by less than 10cm from the body of the wall, rise from a plinth which forms the horizontal base of the panels ≈30cm above ground level; their placement is independent of the internal structural members of the aisle. The sacristy abutting the eastern end of the southern collateral occupies the site of a tower for which no architectural details survive: it collapsed during the same storm that destroyed the one prolonging the northern transept arm at Cuxa.

In contrast to the apse and south wall, the surface decoration of the western façade shows certain idiosyncrasies which remain unexplained. The roof line at the gable of both

nave and south aisle is emphasised by arcades traced with the same delicacy as those of the apse, and which form the upper limits to broad panels set between pilaster strips reinforcing the angles of the building [165]. Rather than being evenly stepped to reflect the gradient of the roof, the seven arches of the nave wall are arranged horizontally in a 2:3:2 pattern, with the lateral pairs being slightly lower than those at the apex. The base framing to this central panel is marked by a simple projection of the masonry just below the level of the aisle roofing. The pronounced regularity is disturbed on the lower level of the western elevation: whereas the series of five arches comprising the corbel table of the south aisle rise evenly in line with the roof, their counterparts on the north side are interrupted by a broad pilaster sited eccentrically on the aisle wall. The effect of this modification is threefold: the arches of the northern panel of the façade are broader than those of the south aisle; to compensate for the presence of the pilaster, the recess to the north side of the door extends beyond the line of the nave, and thus differs in width from its southern counterpart; and this wider field cuts the pilaster which frames the upper nave wall such that its narrower continuation visible at the southern junction between nave and aisle is completely absent. A difference in width between the two angle pilasters further confuses the issue, that to the north being noticeably broader and extending beyond the eaves of the nave to form an external buttress.

The south wall of the nave above the collateral is free from ornament, although reroofing may have destroyed the original configuration of the eaves, as it has at other churches
in the region. The exposed masonry confirms that the pilaster strips used at Cardona to
reinforce the clerestory were neglected at Sainte-Eulalie, and the inclusion of a projecting
feature designed to stabilise the spring-line of the vault seems unlikely, given the undisturbed
state of the stonework at the angle of the western façade. The decision to ignore these

precautionary measures underlines the experimental nature of the design, where the only concession to the stability of the lateral walls was to limit the width of the windows.

The sourcing of the stone used in the building is especially significant given the geology of the area, with the church located close to several distinct stratigraphic units which allowed the masons a degree of choice largely unavailable to their colleagues at other sites. The underlying formation is that of the Miocene agglomerates, these cloaking the valley floor and forming north-south ridges either side of the river. The confluence with the Têt is marked by prominent headlands of Villefranche marble, whilst outcrops of gneiss and schist occur further upstream at Sahorre.

There is, however, little apparent discrimination in the selection of material used in the body of the church, where blocks of gneiss and granite derived from the Canigou massif are interspersed with schists of the Jujols sequence. The spectrum of the harder igneous and metamorphic rocks includes examples subjected to either water or mechanical erosion, which suggests that both the neighbouring riverbed and the Miocene agglomerate beds of its eastern escarpment were exploited, but native outcrops – and their associated scree slopes – were also available a short distance upstream. Although gneiss and granite blocks comprise the larger proportion of the fabric, they are interspersed with a significant amount of schist, seemingly used in a random fashion. For example, there is no evidence for it being used in elongated blocks to improve the surface bond, or to tie the pilaster strips into the body of the walls.

The one local source of stone ignored in the fabric of the church is the Villefranche marble: given the assumed presence of this material in both scree slopes and ground scatter, the fact that it is only occasionally incorporated in the masonry presents something of a

conundrum. There is nothing intrinsically difficult in working marble to create blocks of the required dimensions, and its crystalline composition is no less conducive to bonding with lime mortar than that of gneiss or granite.

However, in two features of the building the masons showed a distinct preference for a particular type of stone. The exclusive use of granite for the voussoirs which form the arches to the windows and doors is the most obvious example, and demonstrates both that the means of working this difficult material were known in the early decades of the 11th century, and that tools of sufficient quality were available to achieve it.

The second example concerns the employment of travertine in tracing the heads of the arcaded panels formed on the external walls. The softness and honeycomb structure of the deposits allowed them to be cut and shaped into small blocks with relative ease, and encouraged their inclusion in detailed work which did not involve a structural function. At Sainte-Eulalie, such material was used sparingly: although it is the main component of the lower arcades of the west façade, more diverse materials are to be found fulfilling the same function on the walls of the south aisle. It is difficult to determine how widespread this practice was in Conflent, given that many of the surviving examples of contemporary arcaded panels are concealed by surface rendering, but travertine continued to be used for architectural detailing into the following century.

Although Puig's emphasis on *petit appareil* as a characteristic of the buildings of the period conjures up an image of materials of similar dimensions being set in even courses, this is only an approximation of the case at Sainte-Eulalie. Certainly, in comparison with the random stonework of earlier buildings, the masonry has become more homogenous, but variation in the size of the blocks is still sufficient to require deep mortar beds to ensure a

degree of regularity. On the apse, however, the masonry differs markedly in appearance from that of the body of the church: the coursing varies in depth and includes a noticeable amount of interstitial packing in its make-up, thus reducing the proportion of mortar in the wall. In contrast, there is evidence that some of the blocks have been more precisely squared-off than those used in the nave and aisles, especially when used in the window arches or at strategic points in the pilasters. Although not conclusive, the differences in approach to the construction of the apse suggests that more skilled artisans were assigned to this, the most significant part of the building, a practice common to other First Romanesque buildings.⁵⁹⁹

The non-nuclear nature of the settlement at Fuilla eventually led to another church dependent on Sainte-Eulalie, Saint-Jean-Baptiste [E4], being erected to serve the hamlet at its southern extremity (*Veïnat d'Amunt*). The building bears no external ornament and, although horizontal coursing is largely maintained, the fabric includes a greater range in the size of component blocks than is generally the case with 11th century work [174,175]. A barrel vault of slightly two-centred profile and without transverse arches covers the nave, and appears to be original. At first sight, the use of dressed granite to reinforce the angles of the western façade, and in forming its central doorway, would indicate a date in the second half of the 12th century, but a break in the masonry of the south wall suggests that this section of the envelope was a modification to a pre-existing building. It therefore seems probable that Saint-Jean-Baptiste was constructed close to the turn of the 11th century, and belongs to the category of unadorned churches in Conflent where more precise dating is impossible.

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Porter, 1917; pp.29-32. More skilful workers and better materials were also assigned to the main structural components of the church: for the early 11th century, Éliane Vergnolle, 'La pierre de taille dans l'architecture religieuse de la première moitié du XI^e siècle', *BM* [154:3] 1996, p.230, where the example cited is Saint-Philibert de Tournus; for later periods, Erlande-Brandenburg, 1999, pp.162-63.

Another Romanesque building associated with the linear development of Fuilla is the chapel of Saint-Clément de la Sierra, located on the ridge between the village and Corneillade-Conflent [E4]. This was a dependency of Santa Maria de Ripoll in the 10th century, and the stone bench which runs along the nave walls has been cited by some authorities as evidence of a Pre-Romanesque structure. The allod of which the church formed part is known to have passed into the hands of viscount Guifred by 975, and the dimensions of the apse and its surviving cul-de-four vault intimate that it was modified or partially reconstructed after this date [176,177]. The random nature of the masonry does not preclude its having been built during the period when First Romanesque influences held sway, however, as the ungraded stone used was sourced 'as found' from the Miocene agglomerates which underlie the site. The absence of Lombard decoration on the apse is perhaps a more reliable pointer to much of the church being a product of a 12th century renovation, which presumably included the replacement of the original south doorway by one formed of dressed blocks of Villefranche marble.

Saint-Vincent de Mantet is located on the col at the source of the Rotja which allowed access to the headwaters of the Tech [D6]. Its early history reveals the first church on the site to have been founded by a member of the chapter of La Seu d'Urgell, and subsequently to have passed into the hands of the comital house of Cerdagne-Conflent. Late in the 11th century it became a possession of Sainte-Marie de Corneilla-de-Conflent, the ground plan and a large proportion of the fabric – largely comprising quarried granite - being attributed to a new building consecrated in 1102 [178,179]. The plain walling of the apse is crowned

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Mallet, 2003: p.221.

⁶⁰¹ Ponsich, 1980: p.102.

⁶⁰² *CR* [7]: p.451.

Appendix W.

by a course of chamfered granite blocks, and confirms that by the beginning of the 12th century both the pilaster strips and arcaded corbel table typical of First Romanesque practice were considered outmoded. The simplified treatment of the eaves is therefore significant in providing a point of reference for the dating of rural churches where more revealing architectural detailing is lacking.

The villages of the central Têt valley furnish additional examples of churches primarily built in stone eroded from the massif, and conceived with First Romanesque aesthetics in mind. None have known consecration dates, and those of the larger settlements were extensively remodelled as the prosperity of the region increased. An exception – in terms of the masonry - is Saint-Côme-et-Saint-Damien de Serdinya [D4], first mentioned in 1061, where graded schist blocks from the north bank of the river were laid in horizontal courses to form a semi-circular apse divided by well-defined pilaster strips into three equal fields [180]. Trowel-marked joints in the masonry are also consistent with a structure built in the first half of the 11th century. Raising the apse to the full height of the nave has destroyed the heads of the panels and any detailing at the eaves, and the axial window has been replaced. The modification derives from attempts to convert the unicellular church into an aisled basilica: these were only partially successful, but sufficient to destroy or obscure much of the original fabric.⁶⁰⁴

Although Saint-Michel de Cuxa was the principal landholder in Ria, control of the parish church of Saint-Vincent [E3] did not pass into the abbey's hands until 1134. The building was extensively altered in the 17th century, an aisled basilica being reduced to a nave with a series of lateral chapels on its north side, leaving only the bell-tower to betray its First

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Romanesque origins [181,182]. Of slightly trapezoidal plan, this three-storey structure is set against the north-east corner of the nave, the lower stages being pierced by tall lancets with an internal splay and that of the summit by four prominent arched openings. The single, rather than twinned apertures of the upper storey have drawn comparisons with the churches of Corneilla-de-Conflent, Prats-Balaguer, Evol and Odeillo (*Cerdagne*), all being considered work of the third quarter of the 11th century. The external decoration at Ria is atypical, however, the panels set between wide corner pilasters not coinciding with the internal divisions of the tower, with the lower corbel table being set just above the floor of the second stage. The arcades are asymmetrical, the number of arches decreasing from five above the upper panel to three at ground floor level. Where visible, the fabric is revealed to comprise a mixture of water- and mechanically-eroded gneiss and granite interspersed with the occasional elongated block of schist.

The *villa* of Prades was granted to count Seniofred I in recognition of services rendered by Charles the Bald in 843, and shortly afterwards transferred to the abbey of Lagrasse. The street plan of the modern town respects the boundaries of a medieval *cellera* surrounding the parish church of Saint-Pierre, notable for its imposing Second Romanesque tower. Although nothing remains of the 11th century version of Saint-Pierre, a small chapel – Saint-Martin de Canoha [E3] – survives on the right bank of the Têt where the route north to Sournia crossed the river. This is another of Cuxa's early possessions, with the current building being attributed to the mid-11th century. Unusually, the semi-circular apse is markedly lower and narrower than the barrel vaulted nave, its external wall surface divided

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The configuration is not reflected on the outside of the tower, some of the lancets having been blocked before the masonry was rendered.

Bailbe, 1989: p.31ff.

by wide pilasters into five identical panels with twinned arches at their head, that of the centre pierced by an axial window with a pronounced external splay. The whole of the exterior of the building having been rendered, the material used in its construction is not immediately apparent, but the arrangement of the Lombard ornament places the monument firmly in the First Romanesque tradition.⁶⁰⁷

Two dependencies of Cuxa lie immediately north of Prades in the valley of the Castellane, both buildings being heavily reliant on eroded stone from the massif for their fabric, material not only being sourced from the river bed but from an outlier of Miocene agglomerate exposed immediately south of the village. The parish church of Saint-André de Cattlar [E3] formed part of a gift made to the abbey by a layman, Bernat, and his overlord, count Sunifred, in 948. The footprint of the original structure and its First Romanesque successor has been obscured by later alterations, the church having been re-oriented with the original apse now forming a lateral chapel opening off the south-east corner of the present nave. This is the only part of the building where First Romanesque fabric survived an extensive 12th century refurbishment. The two lower stages of the tower belong to this period, the late date of their Lombard decoration being betrayed by the carved modillons supporting the corbelling. The exterior wall of the original apse is unadorned, and raised in typical *petit appareil* with vestiges of trowel-incised joints.

The donation included an adjacent *cella* dedicated to the Virgin which was later reconstituted as the priory of Sainte-Marie de Riquer, a new church being consecrated in

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The chapel now forms part of a private residence, and written requests to gain access elicited no response from the owner. However, Ponsich confirms that the nave is barrel-vaulted, and that the fabric resembles *petit appareil* formed of rounded blocks obtained from the bed of the Têt; see *CR* [7]: p.486.

1073 [E3].⁶⁰⁸ Given its proximity to the mother house, responsibility for its construction can safely be attributed to masons despatched from Cuxa. As this is the last securely dated First Romanesque monument in Conflent, it provides a useful reference point for buildings tentatively attributed to the late-11th and early 12th centuries. Now in private hands, it is in an excellent state of preservation, the tympanum and intrados of the south doorway still retaining vestiges of a mid-12th century fresco.⁶⁰⁹

The priory church is separated into nave, choir and semi-circular apse by transverse arches, with another pair dividing the nave into three equal bays [183-190]. Externally, the thrust of the arches (except that dividing nave and choir) is countered by engaged piers, another pair either side of the west doorway reinforcing the façade. These structural provisions were considered by Brutails ample proof that the nave and choir were roofed by a barrel vault, but this is not now considered to have been the case. A cul-de-four vault covers the apse, and is set slightly lower than the intrados of the broad triumphal arch, giving this feature a stepped appearance.

The background fabric was raised using material primarily sourced from the beds of the rivers Têt and Castellane. Water-eroded stone predominates, but is interspersed with more angular blocks derived from the adjacent agglomerate outcrop: although arranged in horizontal courses, the larger dimensions of the components mark a departure from the *petit*

Appendix V. MH Base Mérimée PA00103984 (designated 1983). CR [7]: pp.348-50. Removal from the control of Saint-André instigated a lengthy law suit between parish church and monastery, a compromise eventually being brokered by the bishop of Elne and count Guillem Raimond. The judgement specified that neither the original sponsor of Sainte-Marie nor his descendants would have any future claim on the property, a stipulation motivated by the growing practice of aristocratic families attempting to recover assets donated to monastic houses by their forbears.

⁶⁰⁹ Anne Leturque, 'L'église Sainte-Marie-de-Riquer à Cattlar et ses décors peints extérieurs', SMC [45] 2014.

Brutails, 1901: pp.35-36. Cf. *CR* [7], p.350; this estimation is based on the thickness of the lateral walls and dimensions of the buttresses, deemed insufficient to support the weight of a stone vault. Other examples in Roussillon of 11th century wooden roofs being supported on transverse arches include Saint-André de Sorède, Saint-Génis des Fontaines, Sainte-Marie d'Arles and the cathedral of Elne

appareil used south of the Têt. Variations in size also suggest that the infrastructure which existed to furnish the sites of the massif with homogenous material was no longer functioning. Incised trowel marking of the mortar on the apse compensates for the deficiency, imparting a 'false ashlar' regularity to the masonry; traces of ochre dye in the grooves verifies that the surface was not lime-washed, although flush pointing of the stone would have resulted in the joints contrasting with a uniform off-white backgound.

Lombard ornament is also restricted to the apse, where pilasters divide the wall surface into three full-height panels, their arched corbel tables being arranged in a 6:7:6 sequence [185]. Each panel features a window with an angled external embrasure, those on the flanks being offset to the west; three more of identical design pierce the south wall of the building, one illuminating the choir and the others the eastern bays of the nave. The use of travertine in the detailing of the openings and corbel table of the apse adds to the polychrome appearance of the structure: small blocks define the arcades, and the external arch of the windows is constructed of smooth, wedge-shaped voussoirs below a projecting, square-section hood mould [186,187]. Impressions left by lag boards show that these were surface features, the thickness of the wall being bridged in conventional fashion using random stone.

The cutting and dressing of travertine would not have taxed local masons, but examination of the transverse arches in the nave demonstrate that they had acquired considerable skill in dealing with granite. Although of differing thickness the blocks used here have been cut to ensure a consistent profile to both intrados and extrados, and their smooth visible faces confirm that they were subjected to some surface treatment [188]. The relieving arch of the south doorway and its accompanying hood mould display similar

expertise in handling granite, but whether this extended to the preparation of a solid tympanum cannot be determined by visual examination, the external surface being obscured by the fresco and that on the interior by a masonry fill above the horizontal lintel [189,190]. The intensive labour involved in processing the stone presumably precluded the regular inclusion of dressed blocks elsewhere in the fabric, although a number (?one a re-purposed lintel) are to be found reinforcing the external angles of the western façade.

Sainte-Marie might be cited in support of three crucial propositions concerning the later stages of the First Romanesque: that the aesthetics of the style continued to hold sway into the 1070s; that masons of demonstrable proficiency were still working at Cuxa during this period; and that funds were still available for the underwriting of substantial building projects. The failure to capitalise on this situation at other dependecies remains unexplained, but may have its roots in the history of the foundation following the death of Oliba. Whereas his immediate successors shared his commitment to enhancing the abbey's estate – for example, by building the transept towers at Cuxa – the Gregorian reform saw a more austere regime in control of the monastery after it passed into the hands of Saint-Victor de Marseilles in 1091.

The parish churches of Codalet and Taurinya, the two villages north and south of Saint-Michel de Cuxa in the valley of the Lliterà, bear few signs of their 11th century or earlier structure. The footprint of a unicellular Pre-Romanesque building may be preserved in Saint-Fructueux de Taurinya [E4], an important dependency of the abbey, the northern vessel of what is now an aisled basilica being completed by a rectangular apse [191-193]. Masonry incorporated in the base of the late 12th century tower has been interpreted as the remains

of a raised transept which formed part of this building.⁶¹² However, the regular fabric, barrel vault and semi-circular triumphal arch of the north aisle may indicate that it was renovated during the First Romanesque period.

The consecration in 1053 of Saint-Vincent d'Eus [F2] signalled the completion of alterations to an existing church carried out after it passed into the ownership of Saint-Martin du Canigou in 1035.613 The programme of works included piercing the south wall of the nave to give access to a new collateral and subsiduary apse, and the construction of three sets of transverse arches to support a replacement roof [194-199]. One of the cruciform pillars of the nave arcade survives at the western end of the church, the others being substituted by turned granite columns surmounted by carved capitals during a renovation of the building in the early 13th century [197].⁶¹⁴ The pilaster strips corresponding to the transverse arches are partially preserved on each pillar, and their responds in the lateral walls of the nave and collateral [198,199]. Despite the substantial dimensions of these structural members, doubt has been raised over their being intended to support stone vaults, the adjacent church of Sainte-Marie de Riquer being cited as an example of transverse arches being used to reinforce a wooden roof. The principal ground for this hypothesis is that the external wall of the collateral is not considered sufficiently robust to counter the stresses imparted by a fullyvaulted structure. In all probability, however, the masons involved were drawn from the atelier at Canigou, where the load of more extensive vaulting was borne on narrower

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⁶¹² CR [7], p.517; this may have included a raised transept,

⁶¹³ Mallet, 2003: pp.186-88.

Pierre Ponsich, 'L'église Saint-Vincent d'Eus', Études roussillonnaises [IV:3-4] 1954-55. The resemblance of the sculpted capitals to those of Saint-Martin du Canigou led Brutails, amongst others, to attribute them to the 11th century. That the original supports were cruciform pillars identical to the one at the western end of the arcade is confirmed by the responds of the transverse arches still being visible above the impost blocks of the columns in both nave and collateral.

perimeter walls than those of Saint-Vincent - \approx 80cm as opposed to \approx 1.4m.⁶¹⁵ It therefore seems implausible that the techniques honed at the mother house should have been rejected when enhancing the status of a major dependency.

The importance of the original roof covering must be seen in the context of the 13th century modifications to the building, which destroyed the one wall surface – that of the chevet – where Lombard ornament may have been applied. In the absence of documentary evidence it would be difficult to justify a First Romanesque date for those parts of the church not of 10th century vintage, and characterised by the use of *opus spicatum*. Admittedly, the *petit appareil* of the collateral matches that at neighbouring sites, and includes a high proportion of water-eroded blocks, but the 11th century aspect of this part of the building is marred by the archaic treatment of the two lancet windows. These are set in the outer leaf of the wall and thus lack the pronounced external splay typical of the period, and designed to allow more light to penetrate the interior of the church. This must have been a considerable disadvantage at Saint-Vincent, where there is no evidence of windows having been included in the other elevations of the building. Comparisons with Saint-Eulalie de Fuilla might, however, suggest a concern for the stability of the lateral wall, and thus corroborate the theory that stone vaulting was a feature of the mid 11th century structure.

The final church of the group is Saint-André de Baillestavy [G4], which was abandoned when its parishioners migrated to a more defensible position higher up the hillside [200-204]. Located east of the massif near the headwaters of the Llentillà, Saint-André was a dependency of Saint-Michel de Cuxa serving an important iron-mining area, and first

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The perimeter wall of the collateral is almost as broad as that of the north wall of the nave, which itself greatly exceeds the 85-95cm usually found in 10^{th} century churches of the region.

recorded in 1011.⁶¹⁶ However, the abbey's accumulation of property in the vicinity was initiated by a donation from count Sunifred in 949,⁶¹⁷ an indication that a first church was probably founded on the site before the turn of the first millennium.⁶¹⁸

The fabric of the earlier church is preserved in the western half of the monument, and presents as rubble walling comprising granite and schist in roughly equal proportions . A lancet window with an inner splay set in the western wall reinforces the view that this part of the building dates to the 10th century. The aspect of the masonry changes midway along the south elevation, where horizontal courses of consistent depth distinguish the eastern end of the nave wall and the projecting semi-circular apse [200,201]. The use of interstitial packing is more widespread than is normally the case with petit appareil, but care was evidently taken to grade the diverse material available - water- or mechanically-eroded gneiss and granite, and angular blocks of schist - to impart an homogenous texture to the wall surface. Further evidence that the extension or rebuilding of this section of the church coincided with the adoption of First Romanesque techniques is present in the four window openings inserted in the fabric, which exhibit the pronounced double splay typical of the style. Of the two illuminating the nave, one has been blocked and the other modified, but those of the apse retain their original form, with granite blocks predominating in both the arched head and external reveals. There are no signs that Lombard ornament was applied to the apse, and re-roofing or recent attempts to conserve the structure have obliterated the architectural detailing at the eaves.

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⁶¹⁶ Ponsich, 1980: p.125.

⁶¹⁷ CC n 302

Ponsich, 1980: p.126. A church is known to have existed in the neighbouring village of Valmanya, also important for iron-mining, in 950.

The entrance to the church is sited towards the west end of the south wall, and may mark the mid-point of the original nave. The doorway differs in two respects from those found in neighbouring churches: the interior arch is both narrower and lower than the exterior, and alternating voussoirs of different rock types – granite, schist and travertine – are used for decorative purposes on the outer leaf of the wall [204].

Whilst the fabric of the Saint-André reflects several phases of construction, it is more reticent in revealing the periods at which the various campaigns were undertaken. A combination of the style of masonry and lack of external ornament on the apse suggests a major renovation of a Pre-Romanesque church in the second half of the 11th century, at which point the two transverse arches were constructed on engaged pillars capped by carved impost blocks [202]. This would coincide with the period when similar supports were used to reinforce a wooden roof at Sainte-Marie de Riquer and possibly Saint-Vincent d'Eus, but could equally be a sign that a barrel-vault was installed over the nave of Saint-André as part of a general renovation of the church. In either event, a second project was later launched to replace the covering of the nave with a vault of two-centred profile, this time with the weight being borne on arcades raised against - but not tied into - the inner face of the lateral walls. This method of supporting a vault recurs at other dependencies of Cuxa such as Sainte-Félicité de Sournia and Sainte-Eulalie d'Arbussols, where advanced stone-working techniques signal work of the later 12th century. This seems a persuasive date for a second renovation of Saint-André, especially if replacing the outer surround of the doorway was included in the programme, the use of polychrome effects being considered an innovation of Second Romanesque masons.

The position of Saint-André on the boundary between the massif and the schist landscape of the Aspres allowed a degree of latitude in the sourcing of stone. In this respect, it is comparable to Sainte-Eulalie de Fuilla, but the masons of Baillestavy exercised greater discrimination than their colleagues in the Rotja valley, especially in the selective use of schist as a means of strengthening critical parts of the building. Slabs of the material were used to raise the angles of the 10th century envelope and, in the next century, as ties to bind the faces of the pillars beneath the relieving arches in the nave. In contrast to the granite used in forming the arched heads of window apertures, the transverse arch crossing the mid-point of the church was also built using thin blades of schist, thus reducing the role played by mortar in ensuring the stability of the structure.

The Upper Têt valley and western Fenouillèdes

Four factors dominate the discussion of the First Romanesque architecture of this sector of Conflent: the role of Cuxa in the construction of the majority of its parish churches; the subtle shift in the characteristics of the fabric used south of the Têt, primarily due to the absence of Miocene agglomerates; the reliance on typology to link buildings sited on the dissimilar lithologies either side of the river; and the constraints imposed on local masons by the nature of the stone extracted from the schists underlying the Fenouillèdes.

Sainte-Marie de Prats-Balaguer [A6] constitutes the only largely intact dependency of Cuxa in the area, those of neighbouring villages having since been neglected or extensively modified [205-208]. The apse ornament is now obscured, but the distinctive profile of a transverse arch supporting the nave vault is consistent with a date in the 1020s or 1030s [207]. Here the method of construction draws on Pre-Romanesque practice, with ledges visible at the summit of the projecting pilasters provided grounds for the formwork. This

opinion is not challenged by the slightly two-centred profile for the barrel vault: as noted in the case of Saint-Paul de Py, local master-masons appear not only to have been aware of developing theories in the field of statics, but to have preferred this form of vault to the 'standard' semi-circular variety. Originally comprising a single vessel, the church was later enlarged by the erection of lateral chapels against the walls of the nave.

Both faces of the perimeter walls of Sainte-Marie are concealed by surface coatings, leaving no opportunity to study the style of fabric used in their construction. The render applied to the apse is particularly obstructive, disguising the original proportions of the pilaster strips which are all that remain of the Lombard ornament. These appear to be broader than is common in Conflent and divide the field into seven equal fields, an axial window being complemented by two others set in the north-eastern and south-eastern panels, all having the external splay typical of First Romanesque practice. The detailing at the summit of the apse wall has been destroyed, but the broad band of replacement masonry above the spring-line of the vault suggests that another element was originally included in the decorative scheme.

The tower has been assigned to a disparate group of structures sharing one common feature, the large arched openings on all four elevations of the upper storey, and provisionally dated to the third quarter of the 11th century [208]⁶¹⁹ However, the lower section is covered internally by a barrel-vault, and may have been completed at the same time as the body of the church: if this were the case, the doorway framed by dressed granite blocks set in the southern elevation must be a later insert. Contradictory evidence of a staged build lies in the

lack of Lombard ornament or pierced openings of First Romanesque style throughout the structure, and any breaks in the masonry are obscured by external rendering.

In contrast to Sainte-Marie, sections of First Romanesque fabric at Saint-Génis de Thuès-Entre-Valls [B5] remain visible, although the building has been subjected to extensive modification [209, 210]. This was an early dependency of Cuxa situated on a ridge between two ravines, one cut by the Têt and the other by its tributary, the Carança, and lies slightly downstream of the founding site of the monastery at Exalada. The structure of the original nave is preserved in the lower horizons of the northern and western elevations; the apse, however, has been remodelled, thus destroying any Lombard decoration which might have been applied to the building, there being no sign of ornament on the surviving external walls.

The original masonry consists of rounded boulders derived from river deposits, interspersed with angular blocks sourced from the granite intrusions associated with the major fault line running along the Têt valley, or the bands of schist which outcrop along the foothills of the Pyrenees. The inclusion of a high proportion of water-eroded stone is significant, the church being located approximately 140m above the valley floor: the difficulty and cost of transporting such material up the hillside in order to emulate *petit appareil* implies that this was prescribed by higher authority, rather than a preference of the masons concerned. The coursing is roughly horizontal, but far more use is made of interstitial packing than is the case on the Canigou massif. Some discrimination in the use of available material can be seen, this being based on technical rather than aesthetic grounds. Larger, elongated blocks alternate at the external angles of the building: on the north wall, these serve to

For internal details and photographs, <u>www.enciclopedia.cat/catalunya-romanica/sant-genis-de-toes</u> (accessed 19.10.21; no page numbers).

determine the horizontal coursing of the background fabric, but uniform alignment is less evident on the western façade.

Internally, the nave is covered by a barrel vault reinforced by two transverse arches formed from thin, elongated blades of stone in a manner reminiscent of Pre-Romanesque practice in the region: these spring from pilasters engaged in the lateral walls of the nave but, unlike the case at Prats-Balaguer, there is no projecting ledge at the summit of the vertical supports. The triumphal arch is constructed of broader blocks arranged in more conventional fashion; these are of similar height, rather than increasing perceptibly in size towards the summit of the arch as is commonly the case in churches elsewhere in the county.

Further south, and with no known monastic connection, lies the parish church of Saint-Jacques de Nyer [C4], which is a unicellular building with a barrel-vaulted nave supported by two transverse arches, and a projecting semi-circular apse both lower and narrower than the body of the church [211-216]. As at Prats-Balaguer, a series of chapels under a common pitched roof was later built against the north wall of the nave. Decorative aspects of Saint-Jacques have been used to link the site to two churches – Saint-Marcel de Flassa and Saint-André d'Evol - in the sector of the Fenouillèdes between Serdinya and Olette, and thus demonstrate parallel developments in buildings constructed of stone from the more lightly deformed strata north of the central Têt valley. Attributing this group of buildings to the second decade of the 11th century relies heavily on their supposed affinities to two further monuments with known consecration dates lying either side of Puyvalador in the neighbouring county of Capcir.

The feature at Nyer fostering a comparison with Saint-Martin de Riutort (1019), the more westerly site, is the greater than customary projection of the apse pilasters [217,218].

At Saint-Jacques, these are positioned to divide the field into three panels, the lateral ones wider than that of the centre, and give rise to eaves arcades arranged in a 5:3:5 sequence. The framing of a blocked axial window has been retained in the exterior masonry, and a new light added to the southern panel, these modifications arising, as is so often the case, from a 17th century penchant for Baroque retables [212].⁶²¹ In other respects, however, resemblances between the two buildings are hardly compelling: no evidence remains of an original nave vault — with or without transverse arches - at Saint-Martin de Riutort, and the fabric lacks the regularity seen at Saint-Jacques. Furthermore, at Nyer a distinct band of infill is visible above the apse corbel table, which raises the intriguing possibility that another motif — possibly a cog mould — was incorporated in the decorative treatment of this part of the building. If this were the case, it would suggest both an aesthetic affinity with the towers at Saint-Michel de Cuxa and a date nearer the middle of the 11th century than its debut.

A more compelling model for the exterior ornament of Saint-Jacques might be sought at Sainte-Eulalie de Fuilla, both churches exhibiting Lombard features on all four elevations. The composition adopted for the south wall of Saint-Jacques is difficult to read, having been destroyed at the west end of the nave by the later insertion of a doorway framed in Villefranche marble [213]. The masonry of the section that remains visible also shows signs of disturbance, possibly involving the removal of a pilaster strip immediately to the west of the (blocked) original doorway. Although their consoles are set at the same height, the arches of the corbel table to either side of this point are at different levels, thus suggesting that the panel nearest the apse was taller and narrower than that occupying the centre of the wall.

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Several hundred are known from Roussillon alone, that of Saint-Pierre de Prades being considered the largest ever constructed in France. (M.François Respaut, *personal communication*).

No such uncertainty emerges from the north wall of the church, where the arched corbel table maintains a constant level along the length of the building. The detailing of all but the summit of the wall is obscured by the lateral chapels, but the top of a broad pilaster strip set midway along the nave can still be seen above their common roof-line, and another appears at the north-west angle of the envelope [214].

An appreciation of the original fabric of the envelope is only possible on the south elevation of the church, and relies on the trowel-struck ribbon pointing of the central section of plain walling being accepted as evidence of First Romanesque work. Here, angular components predominate, with only the occasional inclusion of rounded boulders sourced from local watercourses. Given the absence of agglomerates in the immediate vicinity, the bulk of the material must have been quarried from surface outcrops and appears to have been subjected to the minimum of treatment before use. It is laid in approximately horizontal courses, but the majority of the blocks are larger than those typically forming the *petit appareil* of the Canigou massif, and confirm that standardized fabric was an ideal rather than an essential in churches of the period.

The western façade of Saint-Jacques is notable for the inclusion of four relieving arches above deep niches hollowed out from the thickness of the wall, a fifth possibly having been blocked when a window was inserted in the apex of the wall [215]. These appear to perform no essential role in reinforcing the fabric, the gables of a vaulted building being subjected to negligeable lateral stress. The closest parallels in Roussillon are to be found at Saint-André de Sorède and Sainte-Marie d'Arles, where the treatment fulfils a decorative rather than structural purpose [219,220], although apse niches are present in the unassuming church of Sainte-Marie de Vilarmila (Rosselló) [221]. A similarity with Fuilla is accentuated

by the stepped arcade which echoes the profile of the pitched roof between two pilaster strips reinforcing the exterior angles of the nave.

As at Prats-Balaguer, the slightly-pointed profile of the nave vault contrasts with the semi-circular form of the transverse arches: these however spring directly from the face of the engaged pilasters rather than being inset, and there are no signs of intervening impost blocks [216]. A tower rises from the north east angle of the building, its upper storeys pierced on each elevation by an oculus above a round-arched opening of Romanesque appearance. Whether it is coeval with the rest of the building is a matter of conjecture, as details its construction are concealed by render.

Further up the Têt valley the majority of the churches and chapels on the borders of Cerdagne were either modified or rebuilt in the late 12th century, much of the activity stimulated by Cuxa's renovation of properties inherited during its expansion in the region. The parish churches of Sauto and Talau, both dependencies of the abbey, date from this period and only unornamented vestiges of their First Romanesque (or earlier) fabric remain.

Of the surviving churches located in the western section of the Fenouillèdes, the closest to the river is Saint-Martin de Canaveilles [C5], another of Cuxa's dependencies [222-224]. Distinct horizons in the masonry of the north wall show the building to have undergone several renovations prior to assuming its present form in the late 12th or early 13th century. Significantly, the site is some 200 metres above the valley floor, the difficulty of portage explaining the absence of water-eroded blocks from the fabric. All the stone used in the church was therefore sourced from up-slope outcrops of the local schist, where variations in cleavage characteristics allowed a degree of discrimination to operate; relatively large

square- or rectangular-faced components are common in the lateral walls of the nave, with thinner material predominating in the later vaulting.

As at Thuès-Entre-Valls, the original apse and any potential decorative scheme associated with it has been destroyed, but the semi-circular triumphal arch has been retained. This contrasts with the acute, two-centred profile of the nave vaulting, and suggests that the latter was erected over a pre-existing building. The addition of a series of internal relieving arches abutting the lateral walls of the church brings to mind similar structural procedures at sites discussed elsewhere, most notably those of Sainte-Félicité de Sournia, Sainte-Eulalie d'Arbussols, and Saint-André de Baillestavy. It is tempting to see these improvements as being centrally organised, and carried out by masons dispatched from the mother house.

Typical of the smaller buildings of the Fenouillèdes is a chapel sited north of Canaveilles, and founded to serve an extensive tract of land acquired by count Oliba Cabreta in 978-79, and donated by his daughter-in-law, countess Guisla, to Saint-Martin du Canigou in 1018.⁶²² Now in ruins, Sainte-Cécile de Celra [C4] nevertheless bears all the hallmarks of a First Romanesque building: a small, vaulted nave (now collapsed) and projecting apse constructed of local schist laid in horizontal courses [225,226]. The apse has two window openings with a pronounced double splay, one on the axis and a second oriented to the south-east, and vestiges of a third can be seen above the prominent arched opening in the south wall of the nave, this marking the entrance to a lateral chapel whose construction post-dated that of the main building. The external walls of the apse are devoid of Lombard

ornament, which suggests that the church was a late 11th century replacement for the one standing at the time of Guisla's death.

Lying in the same geological zone as Celra and Canaveilles is Saint-André de Llar, another ancient dependency of Cuxa now abandoned in favour of a new building in the centre of the hamlet [227-230]. The masonry of the south elevation, and at the base of the west end of the church, appears to be original: this can best be described as rubble walling, with little attempt made at uniform horizontal coursing. Unlike the other two examples, here the masons show a preference for elongated components, rather than square- or rectangular-faced blocks: as drystone walling used to terrace the adjacent hillsides shows, such material either occurs locally in scree or can be easily extracted from native strata. The south doorway, broader than others in the region, is spanned by a semi-circular arch where broad mortar joints separate narrow plates of schist of roughly equal length.

The structure has undergone a number of modifications, and is difficult to relate to the present ground level. The only opening in the semi-circular apse is now partially buried, as is the base of the south doorway and much of the north wall, whilst the western façade retains the outlines of an earlier bell-gable which was later replaced by one at a higher level. Internally, the nave vault shows a pronounced two-centre profile in the sections which have not been deformed by subsidence: it is possible that this was a substitute for the original roofing, and installed when the west end of the church was altered. Work may have been carried out simultaneously on the apse but, if this were the case, the failure to relocate the axial window in the upper section of the masonry remains unexplained.

Opposite Celra, on the southern escarpment of the ravine cut by the Cabrils river, the well-preserved parish church of Saint-Michel, now disaffected, stands in the grounds of a

private residence forming part of the shrunken village of Les Plans [231]. This is one of the earliest documented dependencies of Cuxa, being amongst the possessions of the monastery listed immediately after the destruction of Exalada. Of modest proportions, the unicellular building includes an apse divided into three fields by pilaster strips and surmounted by an arched corbel table organised in the sequence 4:5:4, the central panel surrounding an axial window with a pronounced double splay. The fabric is less homogenous than at Celra, the native strata lying in a different metamorphic zone and yielding thin, irregular blocks which are difficult to split into a suitable size for the raising of *petit appareil*.

The weak cleavage planes and relative homogeneity of the schist used at Llar, Canaveilles, Celra and – to a lesser extent - Les Plans rendered the stone amenable to cutting, but at none of these sites were attempts made to reproduce *petit appareil*. The close association of all four churches with the monastic houses which actively promoted the First Romanesque style in the region thus begs the question as to why uniformity of fabric was not considered a priority. Issues of cost certainly entered the equation, but it is also possible that a reliance on local masons working under token supervision meant that customary practice prevailed over aesthetic preference. It is significant, however, that the apse at Les Plans was decorated in typical Lombard style, this strongly suggesting that similar ornament was applied to monuments at the larger neighbouring settlements where the eastern end of the building has not survived.

These observations assume greater significance when attention shifts further east to a group of buildings with no known monastic connections, and sited in a zone where the schistosity of native rock formations intensifies, and the stone extracted becomes more difficult to split cleanly. All were parish churches and presumably built at the expense of the

villagers: as such they enable a comparison to be made between the constructional approach adopted by the second agency involved in disseminating First Romanesque aesthetics and techniques within Conflent.

At Saint-André d'Evol [C4],⁶²³ the most westerly of the series, the random nature of the masonry betrays a lack of care both in the sourcing of stone and in its bedding [232-236]. Here the masons were hampered by native strata of highly fissile schists which are difficult to extract as sizeable blocks, and leave ragged edges when split across the grain. In some sections of the building there is a tendency to horizontal coursing, but this commonly degenerates into what can best be described as rubble walling, and the fabric as a whole incorporates a high proportion of interstitial packing. Beyond the use of small, flat slabs to trace the arches of the corbel table, there appears to have been no attempt to select particular blocks for use in the key structural components, such as the pilasters and the angles of the building.

The apse of Saint-André is based on a distinctive ground plan, with two shallow, semicircular lateral chapels being constructed in the thickness of the wall either side of the axial window (now blocked) [233]. Such an arrangement was considered an archaism by Puig, but was revisited in the late 12th century rebuilding of Saint-Étienne de Sahorre as a means of retaining the symbolism of the Trinity in a unicellular building.⁶²⁴ A similar preoccupation is visible in the curious design of Sainte-Marie de Planès, a 12th century pilgrimage church or oratory thought by a number of authorities to have been inspired by the western rotunda at

MH Base Mérimée PA00104059 (designated 1943).

The process reaches its logical conclusion at Sainte-Marie de Brouilla, on the Roussillon plain, where the trilobed arrangement of the chevet is reflected in the envelope of the church: see Mallet, 2003: pp.148-49.

Cuxa, of which it was a dependency.⁶²⁵ In contrast, the nave vault of two-centred profile is thought to have been installed when the church was later extended to the west.

The external ornament of the apse at Evol displays a rhythmic alternation in the arched corbel table (?...1:2:1:2:1) above panels framed by prominent pilaster strips, the whole assemblage being raised above a low plinth. The scheme and detailing of the ornament has been compared to that of Saint-Jacques de Nyer, thus placing the church amongst the group of buildings bearing affinities to Saint-Martin de Riutort [217,218]. In this instance, the lack of original nave vaulting contributes to the resemblance, and tends to support the view that Saint-André was constructed in the 1020s.

Lombard ornament is also a feature of the upper stages of the bell-tower, where recessed panels on each face are set between broad angle pilasters and capped by an arcade of five shallow arches [233,234]. The summit of the tower has been remodelled, and only the opening on the north elevation remains, the thin slabs of its semi-circular arch emerging from the render concealing details of its fabric. The base of the tower is the most carefully constructed part of the church, with sizeable blocks of schist predominating in masonry raised in horizontal courses without recourse to interstitial packing. Occupying almost two-thirds of the height of the structure it is also marginally larger in plan, a step in the walls marking the point where one campaign ended and another began. It is possible that it was initially conceived as having a defensive function, and may even predate the building of the church.

A second site near Puyvalador, Saint-Romain de Réal [237,238], has been proposed as a model for Saint-Marcel de Flassa [D4] further to the east, both churches being distinguished

²⁵ *Ibid.* pp.237-38.

²⁶ *CR* [25]: p.244-45.

by a rectangular chancel. Saint-Marcel has in the past been described as Pre-Romanesque,⁶²⁷ but this attribution is proved a misconception by the arched corbel tables which reinforce the spring-line of the barrel vault erected over the apse, and rise in stepped fashion on its gable wall [239,240]. These are outlined in white tufa or travertine, with red stone being used on the north wall to fill the hollow of the arches. Rather than ending at pilaster strips reinforcing the angles of the building, the added thickness of the corbel tables was accommodated by corbelling out the top courses of masonry.

Although the consecration date of Saint-Romain de Réal has not been established, the founding of the church has been seen in the context of an early 11th century consolidation of territory annexed by Oliba Cabreta in 981. The rectangular plan of the apse is the only feature of the building which admits comparison with Saint-Marcel, the Lombard decoration not only being more prominent than that at Flassa, but also extending to the south wall of the nave. The considerable projection and precisely shaped modillons of the small section of apse arcading which still remains visible emphasise the difference in approach – both technical and aesthetic - of the masons employed on the two sites. A far more valid model, and one which also supports an early 11th century date for Saint-Marcel, is Saint-Martin du Canigou, where the decorated fields of the chevet are uninterrupted by pilaster strips, and a continuous corbel table runs beneath the eaves of the three projecting apses [134].

The apse retains the originally barrel vaulting, but that of the nave – possibly a 12th century modification, and supported on a pair of transverse arches - proved unstable and was later replaced by wooden roofing. The background fabric comprises shallow blocks of schist laid in horizontal courses, some individual components being of considerable length. The site

of the church on a steep ridge dictated the position of the entrance, which is located midway along the north wall of the nave. The voussoirs of the semi-circular arch above the doorway on the external face of the wall were also cut from travertine, an unusual use of a material employed sparingly (or not at all) in churches of higher status. This may be explained by Saint-Marcel being a suffragan of Saint-Damien-et-Saint-Côme, the parish church of Serdinya, a village noted for the exploitation of deposits laid down in local caverns.

Apse ornament similar to that at Flassa is the distinguishing feature of another parish church sited midway between Evol and Flassa, Saint-Julien-et-Sainte-Basilisse de Jujols [D4]. The semi-circular apse again carries a continuous arched corbel table raised only slightly from the background fabric, and is pierced by two window openings — one on the axis, the other facing south — where the marked bevel of the external reveals is repeated in the masonry of the their round-arched heads [241,242]. A large structure, square in plan, abuts the southeast corner of the nave, and has been interpreted as the base of a tower which either collapsed or was never completed. Although the typological grounds used to ascribe similar dates to the churches at Evol, Jujols and Flassa appear tenuous, their construction may reflect the changes in settlement pattern and expansion of the parish network which are conjectured to have taken place during the early decades of the 11th century.

A final building, the small chapel of Saint-Étienne de Campilles, is located on the sequence of schists and marbles outcropping to the north of Villefranche [243,244]. The structure is barrel-vaulted and rectangular in plan, the only window being a narrow lancet set centrally in the east wall above the altar. The fabric comprises rubble walling with larger, more regular blocks being reserved for the external angles. However, the doorway sited in the south wall is framed by dressed marble blocks of pink or grey hue, with wedge-shaped

voussoirs used to form the semi-circular head. Despite the high degree of technical skill displayed by the masons, the church is considered a late 11th century monument,⁶²⁸ and cited as evidence that native marble later appreciated for its decorative qualities was extracted, worked and surface-treated by local craftsmen during the First Romanesque period.

The Millas granite, the Aspres and advances in stone-working techniques.

The majority of churches on the Millas batholith are located in villages and hamlets – some now abandoned - that reflect the nucleation of a previously dispersed population during the 12th century, and thus display no First Romanesque features. Two of earlier construction are, however, to be found at Arbussols and Marcevol, and furnish some evidence of a degree of expertise being acquired in the treatment of native granite in the later decades of the 11th century.

Sainte-Eulalie d'Arbussols [F2], a dependency of Cuxa, once served the monastery's extensive holdings in an area where the village church of Saint-Saveur was held in private hands before being ceded to the priory of Marcevol. Even building campaigns and the dimensions of the original church can be read in the abrupt change of masonry technique occurring midway along the lateral walls, petit appareil raised in the local granite being restricted to the eastern end of the envelope [245-247]. An 11th attribution for this phase is corroborated by the continuous arched corbel table crowning the projecting apse, which is only slightly lower and narrower than the nave. The south wall also preserves two features consistent with First Romanesque work: several voussoirs of a semi-circular arch marking the site of the original entrance, and a lancet window framed by a grooved lintel and dressed

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Mallet, 2003: p.205.

Jean-Pierre Garrigue, *Arbussols et Marcevol. Deux villages, une histoire.* Saint-Estève, Roussillon (Éditions les Presses Littéraires) 2017, pp.21-29.

granite jambs. The second project extended the nave to the west and, as has been encountered elsewhere in the context of 12th century modifications, included the construction of internal arcades to support the loading of a barrel vault. The masonry is distinguished by the use of larger components and dressed granite quoins reinforcing the reveals of the replacement doorway and the angles of the western elevation. Both phases of the work may have been undertaken by masons from Cuxa, the church having come into the possession of the monastery in the early 11th century.

The presence of four large granite blocks in the lower levels of the south wall remains an enigma, especially as the two east of the doorway have precisely cut rebates in one or more of their faces. Given the amount of labour involved, these must have been intended for a specific purpose, and not one connected with the work at Sainte-Eulalie. One possible explanation is that they are of Roman origin, sourced and worked at a local quarry and never used.

Further to the north, the parish church of Marcevol, Sainte-Marie de les Grades [G2], is sited in a commanding position which led to its being incorporated in a defensive work protecting the village during the early 13th century [248,249].⁶³⁰ The building is vaulted throughout, and its internal division into nave, choir and apse is reflected by successive reductions in width. The fabric of the south elevation is largely concealed under surface

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CR [7]: p.306. Access to the church is currently prohibited on Health and Safety grounds. For chronological details, see Olivier Poisson, 'Arbussols, l'église Nostra-Senyora-de-las-Grades-de-Marcevol', https://sauvegardeartfrancais.fr. (consulted 22.01.21: no date). Although the village of Marcevol is mentioned in a papal Bull of 1011 listing the possessions of Saint-Michel de Cuxa, the first indirect reference to a building dedicated to the Virgin occurs in 1088. The present-day (ungrammatical) French designation of the church derives from late medieval Catalan, and possibly relates to the series of steps leading to the south doorway. The defensive enclosure constructed to the south of the church, and which originally extended over the apse, has been ascribed various dates between the 13th and late 16th centuries. Cf. Malcolm Barber, The Two Cities. Medieval Europe 1050-1320, London & New York (Routledge) 1992, pp.183-89: Marcevol was close to the frontier during the Albigensian crusade launched in 1209, when Catalan sympathies for the Cathars exposed the region to hostile action.

coatings, but the masonry of the apse remains exposed and presents petit appareil reinforced by four pilaster strips, each of the three equal panels thus differentiated being surmounted by a triple-arched corbel table. Erosion of the stone suggests that the majority was obtained from surface outcrops, but cut and roughly-dressed blocks of granite used in constructing the pilasters and to form the arched head to the axial window have retained their definition, and may indicate the exploitation of unweathered rock.

The regular masonry of the apse extends to the north wall, where areas of incised pointing reflect typical 11th century practice, but the western façade is constructed of more random material and incorporates horizons of opus spicatum. The overall impression is thus one of a building having been extended or subjected to extensive remodelling, but this may have been undertaken over a relatively brief period: important donations were given to the foundation in the late 11th and early 12th centuries, these possibly coinciding with its passing into the hands of the Order of the Holy Sepulchre. 631

The last monument to be considered is Saint-Étienne de Sofrunys [G3], notable for being built of the massive schist which outcrops to the east of the Canigou massif. Now hidden in undergrowth, this was the parish church of a hamlet in the hills above a tributary of the Riu Fagès, later abandoned in favour of the neighbouring village of Glorianes [250-255]. The coursing of the fabric of the nave is unusual, with horizons formed by small blocks of stone – frequently laid on end – interspersed with those comprising slabs which can reach a length of a metre or more. Two engaged piers on the interior of the north wall and the

The imposing priory church of Sainte-Marie, built by the Order on an adjacent site and considered typical of late 12th century work, tends to support this view.

remains of a triumphal arch reveal that the barrel vault covering the nave was supported by transverse arches, the central one being reinforced by an external buttress.

The masonry of the apse is less homogenous, the curvature of the structure demanding the use of smaller blocks, their varying depth occasionally leading to a breakdown in the horizontal bedding characteristic of the body of the church. The *cul-du-four* vault over the apse remains intact, the exposed interior revealing that it was constructed with none of the care invested in raising the fabric of the nave. Two broad pilasters divide the external surface into three identical panels, each with a triple-arched corbel table. Two windows with a pronounced double splay are set in the central and southern panels, but any additional means of illuminating the church cannot be determined, the south wall of the nave and western elevation of the building having collapsed.

From a technical point of view, Saint-Étienne confirms that whilst quarrying of the native strata took place in the 11th century, the stone was not subjected to any post-extraction treatment. Specifically, and in contrast to late-12th century practice, it was not cut to a radius curve for use on the apse; perhaps more surprisingly, there are no signs that the masons profited from the availability of long slabs to insert through-stones in the lateral walls, thus tying the two leaves of masonry together [255].

The rare incidence in Conflent of churches representative of the later phase of First Romanesque architecture echoes the dearth of surviving late 11th and early 12th century monuments affecting much of medieval Catalonia north of the Pyrenees. This appears to be a period when activity at monastic sites declined, and it was left to the builders of isolated churches founded in rural areas to dispense with *petit appareil*, and begin to demonstrate newly-acquired skill in the treatment of stone. The tendency is exemplified at Saint-Saturnin

de Montesquieu (*Albères*), consecrated in 1123,⁶³² where dressed and polished white marble from Céret was used to frame the axial window of the apse and the original west doorway [256-258]. The retention of prominent pilasters and an arched corbel table on the eastern elevation confirms a continuing respect for First Romanesque aesthetics, but the surface ornament is enhanced by the inclusion mid-panel of sculpted granite modillons.

Although two elements considered by Puig as diagnostic of the mature phase of the Romanesque – dressed stone and sculpted ornament – are present at Saint-Saturnin, the reversion to rubble walling for the background fabric precludes the monument being considered truly representative of Second Romanesque practice. As the church has no known connection to an aristocratic or monastic sponsor, its innovatory aspects must be credited to the master-mason responsible for the site. This evidence of local initiative is significant in demonstrating the ability of indigenous craftsmen to adapt and reinterpret elements of a prevailing style, an attribute which informs the architectural analysis of buildings erected throughout the region during the First Romanesque period.

Chapter 8

Experiment or emulation? Reflections on First Romanesque system and style.

A serious obstacle to understanding the mechanisms involved in the introduction of First Romanesque building practice to Conflent lies in the lack of activity at high-status sites in the latter decades of the first millennium. It is known from work at Saint-Michel de Cuxa that the defining aspects of the style — the use of *petit appareil* and Lombard ornament — had yet to form part of the mason's specification by the 970s, and there are no surviving structures to witness their possible adoption before the building of Saint-Martin du Canigou. The situation is further complicated in the early 11th century by the near-simultaneous appearance of both features at sites with no known connection to the comital family or local Benedictine foundations, the two milieux with a shared experience of contemporary north Italian architecture.

There is, however, some evidence that the same period saw a perceptible improvement in the technical skills of Catalan artisans, with the rural churches of the later 10th century showing few of the misalignments and irregular footprints common to earlier buildings. As the majority of these must have relied on local labour for their construction, a working knowledge of basic geometry can be assumed to have been circulating amongst indigenous master-masons before the First Romanesque style took root in the province. It does not appear from examples cited above – Saint-Paul de Fenollar, Sainte-Marie de La Cluse Haute, Saint-Romain de Réal and Saint-Marcel de Flassa – that this encouraged the emergence of a standard ground plan, the arrangement of nave and projecting semi-circular apse only becoming prevalent in the 11th century.

On a practical level, the aesthetic demands of the new style posed few problems for masons trained in the methods of the previous century and disposing of lime mortar whose qualities had been thoroughly tried and tested. Three common denominators which illustrate this point emerge from the First Romanesque churches of Conflent: arched openings of 'standard' semi-circular profile; windows with a pronounced double splay; and the application of Lombard ornament to the exterior masonry. However, the omission of a consistent use of petit appareil from the list is significant, and possibly argues for a degree of conflict between the sponsors of rural churches, who might have wished to see their buildings raised in uniform fabric, and the craftsmen engaged to undertake the work. Given the unsuitability of native stone for the production of regular masonry this was perhaps understandable, but only serves to emphasise the efforts made in some instances to conform to the norm established in more geologically benign landscapes. The reasons for the variation in fabric, and especially the factors influencing the use of petit appareil, are therefore crucial to understanding the importance attached to the outward appearance of the church in contemporary society.

Fabric: pragmatism versus perfection.

The view expressed by Puig that the shift from rubble walling was primarily dictated by aesthetics was challenged by early critics of his thesis, who pointed out the economic advantages of using small, cuboid components arranged in horizontal courses. The most tangible benefits were the ease in manipulating the material and the increased ratio of building stone to mortar, reducing the amounts of quicklime required. The potential savings were significant, it being estimated that lime mortar constituted half the volume of rubble-

filled walls retained by two skins of random stonework.⁶³³ Although never achieving the ideal represented by brickwork, where the proportion of bonding agent could be reduced by as much as a fifth, local approximations to *petit appareil* went some way to reduce the fixed costs of the building process.

Less quantifiable were the incidental advantages - both practical and financial - that the use of *petit appareil* offered the supervising master-mason. With the approximate number of blocks per square metre being known, it became possible to draw up an accurate bill of quantities and thus reduce transport costs to a minimum. Stipulating the dimensions of the stone to be sourced by third parties eliminated the need for on-site triage, or time-consuming secondary treatment of the material.

Attempts in Conflent to emulate *petit appareil* were largely restricted to churches located on the Canigou massif and, despite efforts occasionally being perfunctory, it is surprising that imparting homogeneity to the masonry was a prime consideration when raw materials were obtained from surface deposits. As these were of variable size and shape they had to be selected to meet fairly narrow parameters, and common sense dictates that the process was carried out at source. An extra dimension was thus added to the infrastructure established in the 10th century, with winning and grading suitable stone joining lime-burning and forestry as predominantly winter occupations.

The ability to exert a degree of control over the supply infrastructure may have been of marginal import to the patron of a single building, but assumed greater significance for the comptroller of a monastic institution responsible for several sites operating

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simultaneously. 634 The majority of churches located on or adjacent to the massif being dependencies of Cuxa or Canigou, it is not difficult to imagine the two institutions acting in concert to ensure that suitable stone was available on demand, at least during the period when activity was at its height. A reversion to more irregular masonry at Sainte-Marie de Riquer, probably built by masons from Cuxa, provides some evidence that the stoneprocuring element of the infrastructure was no longer viable in the region by 1070s. 635

The situation on the Canigou massif raises the awkward question of whether lay patrons of churches in the region specified masonry resembling petit appareil, or whether its use was within the remit of the master-mason, and chosen because a reliable means of sourcing graded stone already existed. It is the second of these options which is favoured, if solely on the grounds that the stone used in all the churches located on the massif is of similar dimensions. At Py and Fuilla, two sites where the fabric is easily accessible, the majority of the blocks are between 7.5cm and 15cm in depth, and the thickness of the bedding mortar had to be adjusted to compensate for the two extremes being incorporated in a single course [259,260]. Some variation is found at neighbouring sites, with master-masons or patrons seemingly guided by the law of diminishing returns, and accepting a copious use of mortar rather than expending time and effort on accurately grading the stone supplied, or trimming it to uniform size. As the fabric of Oliba's rotunda at Cuxa attests, aesthetics were sacrificed on the altar of convenience even at high-status and well-resourced sites. This was the case at Sainte-Marie de Corneilla-de-Conflent, where incised tool marking was applied to the irregular material used in the north wall to impart a degree of uniformity to the fabric. In

The use of sub-contractors in the provisioning of building sites is analysed by Philippe Bernardi, Bâtir au Moyen Âge, Paris (CRNS Éditions) 2011, pp.43-44.

Above, p.222.

contrast, the blocks of the tower were sorted prior to being laid in regular courses, thus achieving an effect comparable to the masonry raised in sedimentary stone south of the Pyrenees [157,261].

Outsourcing the supply of stone was not, however, a feasible option for the patrons of isolated upland churches, who had to rely on native strata for their building materials. The fissile schists of the Fenouillèdes and Aspres regions naturally lent themselves to horizontal bedding, but were never cut into blocks of uniform dimensions. At Evol, where the stone is least suitable for building purposes, the fabric of the church is markedly inferior to that of the tower, and argues against homogeneity being uppermost in the mind of the mason. The apse masonry in particular includes a high proportion of interstitial packing, greater even than found at 10th century churches built of rubble walling, such as Saint-Michel de Sournia [262,263]. A similar disregard for the visual aspect of the masonry materialises at neighbouring sites where the foliation of the underlying rock is less pronounced, and clean cutting across the grain more easily achieved. The builders of Llar and Les Plans, for example, took no advantage of this characteristic of the stone to create masonry comparable with *petit* appareil, preferring instead to leave the longer blocks unsplit.

The lack of attention to detail at these three sites may have resulted from limited funds being available, but may also constitute evidence that the craftsman held the whip hand, and was loth to adapt traditional practice to the demands of the new style. In this he may have been guided by purely pragmatic considerations: a clean cut across the grain of strongly laminated stone could only be achieved with suitably tempered cold chisels honed to a fine edge, and procuring such tools was almost certainly beyond the reach of local masons until the next century.

Lombard ornament: evidence of system?

The potential economies realised by the use of *petit appareil* were offset or even outweighed by the application of Lombard ornament to the external walls of the church, a time-consuming process which increased labour costs. If, as some authorities maintain, this was viewed as a purely decorative device it would strengthen the case for its inclusion lying in the remit of the patron, who had to authorise the extra expense. On the other hand, local masons may have believed from their use at high-status sites that both pilaster strips and eaves detailing performed an essential structural function, which opens the possibility that the impetus for their use within the fabric of rural churches came from the craftsmen themselves.

The prime example of pilaster strips undeniably contributing to the stability of the building is when they are arranged in the manner of an angle buttress on the bell-tower, especially where the integrity of the upper levels is compromised by the removal of the greater part of the fabric as a weight-reducing measure. The twinned openings in two stages at both Cuxa and Canigou are the most extreme cases in Conflent [67,135], but the potential weakness was generally recognised by the builders of towers with a single large aperture in each elevation, Sainte-Marie de Prats Balaguer being the sole exception to the rule. However, all these examples were the product of mid-century or later campaigns, and shed little light on the attitude of early 11th century masons to the structural benefits of the feature.

In more general terms, the periodic inclusion of pilasters in extensive sections of plain walling may have been viewed as a means of preventing longitudinal buckling: frequently

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countered by setting baulks of timber in the rubble core, this was a problem common to buildings where the two containing leaves of the wall were not tied together by through It is more probable, however, that this was a case where indigenous masons imitated practice at high-status sites without recognising the potential structural implications. For the pilasters to be an effective prophylactic measure they would need to be securely bonded to the background fabric, and this is palpably not the case in the vast majority of the churches located within the county. At Saint-Paul de Py, for example, the intermittent coincidence of the coursing of the pilasters with that of the wall demonstrates that relatively few blocks were common to both sections of the structure [264]. A more regular pattern is visible in the apse of Sainte-Eulalie de Fuilla d'Aval, the one part of the church which has not been repointed, but even here there are signs that block-bonding - a series of penetrating stones - was preferred to the stronger system of alternating components engaged with the background fabric with those extending across the face of the pilaster [265]. Moreover, as remarked above, there are no signs that the masons took advantage of elongated blocks of schist that could be sourced locally to penetrate deep into the rubble core of the wall. The oversight is particularly striking at Saint-André d'Evol, where the pilasters are fashioned from inferior materials despite more suitable stone being available in the immediate vicinity.

There is thus little evidence in Conflent to contradict Puig's view that the use of pilaster strips was primarily a device for adding texture – in the play of light and shade - to the exterior of the church. The progressive development of Lombard ornament in the region also appears to agree with his thesis, spreading from the apse to other elevations of the

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building, and increasing in complexity over time. This is of little moment in establishing an accurate local chronology, the transition from simple arcading at the eaves of the chevet at Saint-Martin du Canigou to the full surface decoration of Sainte-Eulalie de Fuilla d'Aval occurring in the space of two decades. A limiting factor in its application – other than cost – may have been the siting of the church, with ornament being absent from the least visible parts of the church. This seems to have been the case at Canigou, and possibly influenced the masons at Py, where only the articulation of the south wall and tower would have been apparent to the inhabitants of the downslope settlement.⁶³⁸

Local understanding of the structural function of ornament is more relevant when considering the corbel table, and specifically the arched arcades sited at the spring-line of a hemispherical vault. These derived from the series of niches employed in Lombardy to counter the thrust of the vaulting installed over the large principal apse of high-status monuments. Puig dated the innovation to the early- to mid-9th century, citing Sant' Ambrogio, Milan, and San Pietro, Agliate, as examples, 639 and maintained that the arched corbel table was a distinctive First Romanesque variant which emerged shortly afterwards. 640 The Byzantine origins of eaves niches and polygonal crossing towers supported on squinches or pendentives formed the central plank of his argument for the necessary presence of *comacini* in Catalonia, the theoretical principles lying behind the structures only being transmissible by direct means.

Eaves niches are only known to have been employed at one site in Roussillon,⁶⁴¹ where the restricted size of parish churches obviated the need for elaborate measures to be

The raised platform in front of the church now obscuring the view appears to be a later modification of the site.

Puig i Cadafalch, 1909-18: v2, p.528.

⁶⁴⁰ *Ibid.* p.517*ff*.

⁶⁴¹ Above, p.225.

taken to contain the outward thrust of the *cul-de-four* vault covering the apse. Elsewhere they were replaced by the arched corbel table which, in the earliest buildings of Conflent, comprised a slight thickening of the wall supported on a continuous series of projecting arches. This was the method employed at Saint-Martin du Canigou, Flassa and Jujols, but only in the principal apse at Canigou was there an appreciable increase in the mass of masonry bearing on the spring-line of the vault. There is, therefore, a strong case for the arched corbel table being considered a purely decorative motif at all three sites, a view supported by its use at Flassa on the gable wall of the apse, where it had no role in dissipating the thrust of the vault.⁶⁴²

Subsequent modifications to the feature reinforce Puig's opinion that its structural significance was lost on local masons: although more substantial panels of masonry – possibly including a cog-mould - were raised above the corbel arcade at a number of neighbouring churches, there is no correlation between the occurrence and an increase in the size of the apse.

However, sites have been identified in Burgundy where the corbelling formed a series of relieving arches embedded in the background fabric, 643 and was thus appreciated as a means of stabilising the spring-line of the vault. This appears not to have been the case in Conflent: at Sainte-Eulalie de Fuilla, the one church in the county where the architectural detailing of the corbel table is exposed by erosion of the pointing, the evidence is ambiguous. Whereas the blocks forming the *arco bardellonato* above the extrados of the preserved

Puig i Cadafalch, 'Decorative Forms of the First Romanesque Style', *Art Studies* [4] 1926. Cf. Porter, 1917: v1, pp.224-39; L. Grodecki, H. Mütterich, J. Talaron & F. Wormald, *Le siècle de l'an mil*, Paris (Gallimard) 1973, p.53; Durliat, 1989.

Edson Armi, 2000; the exampes cited are Saint-Martin de Chapaize (*fig.*2) and the Cluniac abbey church of Saint-Hippolyte (*fig.*13), both in Burgundy.

window opening are clearly anchored in the external leaf of the wall, those of the corbel table do not appear to be fully engaged [265]. The stone used in the two locations also differs, the cuboid blocks of igneous or metamorphic material surmounting the window arch being replaced by travertine, which has low compressive strength, in the arcading at the eaves. Comparisons with neighbouring churches shows travertine being put to similar use, or its substitution by small blocks of native stone imperfectly bonded to the background fabric, in neither case there being any indication that the detail had a structural function. More telling is the absence at Fuilla not only of pilaster strips but of an arched corbel table at the eaves of the lateral walls of the clerestory. The failure to include these precautionary measures when vaulting the nave remains unexplained, although tufa may have been included in the roof covering to reduce its weight.

There is thus no reason to suppose that the detailing applied at the spring-line of a *cul-de-four* vault required a grasp of statics that could only be acquired by direct contact between master and apprentice. The removal of this condition opened the way for both local patrons and indigenous masons to respond to the 'ambient aesthetic' promoted by their counterparts at high-status sites, and disseminated by indirect means. A context was thus established for the arched corbel table to develop as one of the two diagnostic features of the style – the other being window openings with a pronounced external splay - held in common by the vast majority of First Romanesque churches in Conflent.

<u>Vaulting and transverse arches</u>

The weight given to Puig's thesis by early specialists in medieval Catalan architecture has had the negative effect of encouraging a view that the introduction of vaulting was an exclusively First Romanesque phenomenon. As a result, slight credence is given to the

possibility of local masons being influenced by earlier events south of the Pyrenees, long singled out as one of the regions of Europe susceptible to military attack where measures to guard against churches being razed by fire were pioneered.⁶⁴⁴

It is in this context that the sites of Saint-Martin de Fenollar and Sainte-Marie de la Cluse Haute assume particular significance, their vaulting possibly pre-dating its use at Canigou. All aspects of Saint-Martin de Fenollar apart from the transverse arches point to a construction date nearer the mid-10th century than the turn of the first millennium, this also being the period when barrel vaults were raised over the transept arms at Cuxa. At La Cluse Haute, the combination of barrel vaulting and nave arcades of distinctive profile — where the origins of the arches are set back from the line of the reveals — is also more evocative of Cuxa than Canigou. That these buildings were firmly set in the Pre-Romanesque tradition is corroborated the nature of the fabric, which bears little trace of the uniformity and ornament characteristic of 11th century work.

An acceptance that empirical knowledge of vault construction entered local tradition in the 10th century only marginally detracts from the influence wielded by Saint-Martin du Canigou in encouraging its wider use in Conflent. Both the scale and longevity of the project must have improved local understanding of the techniques involved in erecting a stable barrel vault, and the advantages of reinforcing it with transverse arches. The impact might reasonably be assumed to have been greatest in churches dependent on Saint-Martin or its neighbour, Saint-Michel de Cuxa, but there are only five sites with known monastic connections – Saint-Paul de Py, Saint-Vincent d'Eus, Saint-Martin de Canoha, Sainte-Marie de

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⁴⁴ Clapham, 1936, pp.21-22.

Puig i Cadafalch, 1932: p.45ff. Puig credits the introduction of transverse arches in Catalonia to the builders of Sant Pere de Casserres (1006), and by inference rejects a 10th century date for those of Saint-Martin de Fenollar.

Prats-Balaguer and Saint-Génis de Thuès - where nave vaulting is irrefutably dated to the First Romanesque period.

Its absence in many of the rural churches forming part of Cuxa's estate risks being interpreted as evidence of the monastery being a force for conservatism rather than innovation. However, many of these were extensively renovated during the late-12th century, this not precluding their having been previously roofed in stone. As noted in the case of Saint-André de Baillestavy, the presence of transverse arches erected prior to the strengthening of the envelope gives some substance to the argument. A discontinuity in the internal masonry of the northern vessel at Saint-Michel de Sournia may also signal an attempt to install a nave vault and its central support arch without reinforcement of the lateral walls. Unfortunately, these two sites lie at a distance from the upper Têt valley where many of Cuxa's dependencies were located, and where Sainte-Marie de Prats-Balaguer and Saint-Génis de Thuès furnish the only firm evidence that the monastery had embraced First Romanesque structural solutions when roofing its rural churches.

However, at both Baillestavy and Sournia the possibility that transverse arches were used to underpin wooden roofing cannot be discounted, it being known to have been the option chosen at Sainte-Marie de Riquer in the third quarter of the 11th century. Sainte-Marie is unusual in having external buttresses built to counter the thrust of the transverse arches, thus revealing a limited confidence in the ability of the lateral walls to resist the loading of the roof. The internal arcades added to a number of Cuxa's possessions prior to their being vaulted in the 12th century, and which materially affected their usable floor-space, appears to confirm that masons from the mother house continued to doubt the structural integrity of masonry raised during Pre-Romanesque and First Romanesque building

campaigns. The hesitancy of the monastic atelier certainly contrasts with the methods employed by indigenous masons working on churches erected in the second half of the 12th century to serve newly designated parishes in the Fenouillèdes. In all these buildings walls of similar thickness to those of First Romanesque origin were deemed adequate to support a vault with a pronounced two-centred profile, and unsupported by transverse arches.

In the 11th century setting the choice of roofing must have been influenced by economic considerations, few patrons of the smaller community and parish churches disposing of the means to underwrite buildings with sophisticated – and expensive – architectural detailing. However, a hierarchy based entirely on available resources would obscure the role played by human nature in driving change. For abbot Oliba, heightening the status of religious buildings went hand in hand with enhancing the moral authority of the Church, a consideration which may also have motivated the sponsors of village churches, especially when these were destined to be transferred to the ecclesiastical authorities.

The prime example in Conflent is Sainte-Eulalie de Fuilla: located in one of the most fertile valleys of the county, raising the funds to construct a new church would have presented few problems; equally, the area of the parish would have required this to be a sizeable building. Both were undoubtedly contributory factors in determining the scale of the church, but they did not – singly or in combination – govern its design. This must have arisen from a conscious desire of the part of the parishioners to present the bishop with an exemplary building, one conforming in all respects to the contemporary vision of the ideal church.

Elsewhere, a similar concern to erect churches worthy of parish status had to be met by craftsmen subjected to more stringent financial control, and thus having to be more selective in the structural and ornamental elements of their buildings. For example, the patrons of Saint-Jacques de Nyer apparently offset the cost of the vaulting and complex external ornament by devoting fewer resources to the construction of a bell-tower; at Saint-André d'Evol, on the other hand, the cheaper alternative of wooden roofing was perhaps chosen with the completion of the tower very much in mind.

As might be expected, the constraints imposed on the mason increased in inverse proportion to the size of the settlement, with churches in the smaller villages and hamlets tending to dispense with both nave vaulting and bell-tower. The near-universal adoption of Lombard ornament – however exiguous – demonstrates that at least one element of the First Romanesque style was considered indispensible, but this could be achieved without greatly modifying traditional practice. As a result, these buildings were within the capabilities of lesser craftsmen who had never been employed at a monastic atelier, and who remained ignorant of the structural implications of the new architecture.

Conclusion

The analysis of the 11th century religious infrastructure of Conflent exposes two discrete pathways for the dissemination of First Romanesque techniques and aesthetics. The first was that waymarked by imported practice at iconic sites within the wider region, the second requiring only passing knowledge of contemporary developments in the architectural field, and allowing indigenous masons working on lesser churches to incorporate selected elements of the new style without modifying the methods with which they were familiar. That the boundaries between the two spheres of activity were blurred owes much to the complex geology of the county: not only was this a significant factor in limiting the ambition of monastic sponsors, but also explains the occasional juxtaposition of archaic and innovative features within the same building.

The major changes in approach which can be attributed with some certainty to Benedictine foundations include the consistent application of simple geometric procedures when setting out the ground plan of a church, the development of a local variant of *petit appareil* and the introduction of Lombard ornament. Conclusions that they promoted and perfected the art of vaulting are less securely based, this being an area where the mechanisms involved remain open to interpretation, and examples securely dated to the early 11th century few and far between.

Taken in conjunction, these features contributed to the model of dependent rural church which emerged in the early 11th century: a unicellular building constructed of homogenous masonry, and with a projecting semi-circular apse decorated externally with pilaster strips and arched corbel tables. However, departures from the norm demonstrate that not all these aspects of the new style were fully embraced either by the monasteries

themselves or by indigenous masons engaged by lay sponsors. In the case of Cuxa's estate, for example, there are sufficient variations in the footprint of individual churches to preclude a single pattern being applied by masons working under the instructions of the mother-house. This has implications when attempting to establish a relative chronology for the county: at Prats-Balaguer, for example, the proportions and design of the apse are indicative of a monument built in the second quarter of the 11th century, whereas the profile of the transverse arches supporting the nave vault argues for an earlier date.

Equally, not all variations required a direct transfer of skills from one mason to another, but fell into the category of adjustments to building methods already employed by the local workforce. One inherited capacity was the elementary grasp of statics shown by indigenous artisans, this being witnessed by an ability – irrespective of the materials to hand – to erect barrel and *cul-de-four* vaults over the restricted space of the apse, and to form arched openings in the envelope of Pre-Romanesque churches constructed at the behest of both lay and monastic sponsors. Thin blades of stone commonly used to this end in the 10th century continued to be the preferred option in a number of First Romanesque monuments, not only in areas where strongly laminated strata outcropped in the vicinity of the site, but across other geological environments where suitable stone had to be deliberately garnered for the purpose.

The alternative system of forming arches from blocks of granite of similar dimensions can also be traced to the period when mortar-bonded masonry was reintroduced to Conflent, as confirmed by its use during the first phase of Saint-Michel de Sournia. Throughout the period in question suitable stone appears to have been sourced locally, and subjected to the most basic of surface treatment. The only modifications to the technique linked to First

Romanesque masons related to the organisation of the components, with an increase in height towards the centre of the arch, and the inclusion of an *arco bardellonato* to protect the wide joints of the extrados. That neither feature was universally adopted is a further indication that the choice of construction method fell within the remit of the master-mason in charge of the site.

The structural principles involved in erecting a vault were clearly understood in the 10th century by the master-masons at Saint-Michel de Cuxa and Saint-Martin de Fenollar, and their later application within the county encouraged rather than initiated by work at Canigou. Given the extent of its holdings, Cuxa can reasonably be isolated as the prime mover in this field, but corroborative evidence of this being the case unfortunately rests on a limited number of survivals. It is, however, strengthened by two observations, the first being that the monastery's promotion of barrel vaulting as a viable means of roofing the nave extended to a variety of geological landscapes. On the Canigou massif, for example, it constituted an important structural feature of Oliba's western extension at Cuxa; it was also employed at Saint-Martin de Canoha, and possibly at Taurinya and Baillestavy, whilst Sainte-Marie de Prats-Balaguer and Saint-Génis de Thuès-Entre-Valls confirm its use in the upper Têt valley. Secondly, a clear line of demarcation existed between Cuxa's smaller dependencies and community churches of comparable status, where wooden roofing remained the preferred option throughout the First Romanesue period. The only break with this convention occurred at Fuilla and Nyer, where the sponsors of the parish church displayed an unwonted desire for status when planning their project.

Nave vaulting commonly involved the use of transverse arches, generally constructed on the pattern introduced at Saint-Martin du Canigou but with two notable exceptions. At

Thuès, thin blades of schist characterise the transverse arches bridging the nave, whilst at Prats-Balaguer the origins of the arch are set back beyond the reveals of the support piers, both procedures reminiscent of 10th century tradition and further highlighting the evolutionary nature of the methods favoured by local masons.

The unique conditions bearing on the introduction of the local variant of *petit appareil* are more clear cut, but did not bear fruit until work was well underway at Saint-Martin du Canigou. Here the experimental nature of the structure contrasts with the pragmatic approach taken in raising the fabric, where the challenge of winning and sorting appropriate material from uncompromising strata was only effectively met in completing the tower in the mid-11th century. Given the resources dedicated to the site, the variations in the coursing and block dimensions of the masonry comprising the chevet and base of the tower emphasise the constraints placed on the master-mason(s) by the qualities of local stone.

If attention is switched to two churches sited on the Fenouillèdes, Saint-Marcel de Flassa and Saint-Julien-et-Saint-Basilisse de Jujols, it can be deduced from the fabric that similar limitations to those found at Canigou were faced by their master-masons. Native stone naturally lent itself to horizontal coursing, and required no modification of traditional practice when lime mortar was used as a bonding agent; it was, however, of a quality singularly resistant to being cut across the grain, to the extent that reducing it to blocks of regular size became both complex and expensive. The difficulty in working schist remained of paramount importance across the Aspres and Fenouillèdes throughout First Romanesque period, with accurate cutting and surface treatment of local stone only becoming apparent at late 12th century sites. It must be borne in mind, however, that the isolation of sites in

these regions necessitated the recruitment of inexperienced local labour, which placed a further curb on the techniques available to the master-mason.

The exiguous nature of the decoration applied to the eastern sections of the churches at Flassa and Jujols can also be attributed to similar constraints, a factor which leads some authorities to assess both monuments as representative of the initial wave of First Romanesque structures built in the county during the late 1010s or early 1020s, and based on the schema adopted at Saint-Martin du Canigou. As possible evidence of architectural detailing being defined by the capabilities of indigenous masons of the period rather than the ambition of their sponsors, these two sites invite comparisons with modifications carried out by Oliba at Saint-Michel de Cuxa: here, the surviving apse of the ambulatory added to the eastern end of the church, and presumed from its place in Garsias' text to have been the earliest modification undertaken, is devoid of ornament and comprises masonry which, although laid in horizontal courses, lacks the uniformity typical of First Romanesque architecture.

The earliest documented incidence of the *petit appareil* characteristic of the Canigou massif occurs at Saint-Paul de Py, where explanations for its introduction revolve around the status of the church and abbot Oliba's putative interest in its construction, both issues which have a bearing on the progressive emergence of First Romanesque features throughout Conflent. Accrediting the building to masons dispatched from the mother house of Camprodon, or drawn from other ateliers where Oliba's aesthetic preferences were being implemented, is certainly a cogent explanation for the adherence to a specification more appropriate to the geological environment south of the Pyrenees. However, the stone available at Py was not typical of that found at sites elsewhere in the vicinity, there being no

Miocene deposits in the area and water-eroded blocks being in limited supply in the upper reaches of the Rioja. Work at the site cannot therefore be taken as proving the existence by the early 1020s of an infrastructure developed to cater for the needs of masons engaged on neighbouring First Romanesque projects.

Evidence that existing methods of sourcing and using stone were radically overhauled in the early decades of the 11th century is thus largely restricted to the Canigou massif, where stonework of First Romanesque appearance commonly occurs in buildings which have since been extensively remodelled. As the majority of these churches were dependencies of Cuxa or Canigou, it is reasonable to assume that the monasteries provided the impetus for the change, and used their administrative expertise and financial weight to ensure adequate and timely supplies of material to concurrent programmes operating at dispersed sites. Whatever the mechanisms in play, Sainte-Eulalie de Fuilla confirms that *petit appareil* was the masonry style of choice by the early 1030s, and that by then the sourcing and triage of building stone organised by the two monasteries was open to exploitation by lay patrons.

Defining aspects of First Romanesque practice become less pronounced as the focus shifts from the Canigou massif. The geologically hostile environments of the upper Têt valley, the western Fenouillèdes or the Millas igneous intrusion undoubtedly impacted on the economic viability of producing uniform masonry, but a shortage of skilled craftsmen may also have been a limiting factor. Wherever possible, however, Cuxa promoted the use of *petit appareil* throughout the period, as witnessed by the effort expended late in the 11th century to work local granite to this end at Sainte-Eulalie d'Arbussols. The same aesthetic governed the fabric at the neighbouring parish church of Marcevol, probably built at a period when

other sites north of the Pyrenees were marked by a lack of Lombard ornament and a reversion to rubble walling.

In dealing specifically with Lombard ornament, signs that Cuxa favoured a standard model are reflected in the simple sequencing of the arcaded panels built into the external masonry of the apse: surviving examples are distributed across the dissimilar geological landscapes of the massif (Canoha), the upper Têt valley (Prats-Balaguer), the western Fenouillèdes (Les Plans) and the Millas granite (Arbussols). However, this convention was challenged by the more complex arrangements seen at three parish churches – Fuilla, Nyer and Evol – built by lay sponsors, an anomaly which strongly suggests that an awareness of evolving decorative schemes was in general circulation within the building trade, and exploited by local patrons acting on their own initiative.

When considering the broad spectrum of religious monuments built within Conflent in the course of the 11th century, it is thus easier to focus on their dissimilarities than identify common approaches to design and construction. This in itself argues for the involvement of masons of differing outlooks and skills, some fully adept at implementing the changes in practice demanded by First Romanesque aesthetics, others more reliant on a tradition that stretched back to the preceding century. Bearing this in mind, it certainly appears that the fabric detailing of a number of lesser churches was influenced more by the responsible mason's capabilities than the ambition of the patron.

To some extent, this observation undermines the faith placed on typology, and its role in establishing a relative chronology for architectural developments within the county. There is, for example, no convincing reason to link the rectangular apse of Saint-Marcel de Flassa to a similar design in Capcir rather than the numerous examples to be found at neighbouring

Pre-Romanesque sites. Subtle differences in the projection of pilaster strips furnish an equally unsound basis for comparison, being more easily attributed to vagaries in the mason's approach than to familiarity with a specific model, especially when this lay beyond the natural horizon of both sponsor and craftsman.

Such considerations hold true for both village churches and the smaller dependencies of Cuxa, which suggests that oversight of the latter was entrusted to masons of limited ability, at least during the early decades of the 11th century. Given the extent of Cuxa's estate, these craftsmen may have been employed at satellite workshops primarily established to undertake routine maintenance in the out regions of the Fenouillèdes and Cerdagne plateau. Only three central sites – Saint-Paul de Py, Sainte-Marie de Riquer and Saint-Vincent d'Eus – can be singled out as potentially being the work of a dedicated team sent from their respective mother-houses; elsewhere there is little evidence that the churches linked to Benedictine foundations were constructed to a more elaborate specification than that demanded by lay patrons.

A development on this theme concerns the circumstances which saw the sponsors of the grander parish churches drawn into the orbit of the monastic institutions most closely implicated in promoting the aesthetics and structural solutions of the new style, and sometimes surpassing them in ambition. The extensive use of Lombard ornament and grasp of statics exhibited at Fuilla, and to a lesser extent at Nyer, provides a case in point, and confirms that the salient features of First Romanesque architecture were embraced by the benefactors of village churches by the 1030s.

In the case of Sainte-Eulalie de Fuilla, access to capital and lay involvement in driving innovation are phenomena which merit particular attention. That the 'village aristocracy'

had the resources to underwrite such an impressive project tends to overshadow the issue of how they managed to contact and recruit an individual willing and capable of carrying it out. Unlike his counterpart at a prestigious Benedictine house, who might have been indemnified by his patrons against any critical failures in the building, the master-mason at Fuilla would have borne the sole responsibility for the viability of his design. Why, then, did he choose to erect such a sophisticated church, and where did he receive the training which enabled him to bring the project to a successful conclusion?

Questions of this nature are difficult to resolve even in regions where groups of similar buildings allow detailed comparisons to be made. There being no other contemporary monument in Catalonia where a prominent clerestory was included in the design, the mastermason at Fuilla must have looked further afield for his inspiration. This would not necessarily have demanded personal experience of potential models, merely that knowledge of similar buildings was circulating within the monastic ateliers of the province. The close association of abbot Oliba with both Saint-Martin du Canigou and Saint-Michel de Cuxa reinforces the possibility that the relevant expertise was transmitted via one or the other of these local foundations.

The conclusion reached here is that the evidence is weighted in favour of Canigou, where an advanced understanding of statics is known to have existed, and where the major part of the building was accomplished by the time work started at Sainte-Eulalie. This would have released ambitious masons from the monastery's atelier - if not the master-mason himself - to pursue their careers elsewhere, and to seize the opportunity presented by the mid-century building boom.

Saint-Martin du Canigou and Sainte-Eulalie de Fuilla are the two most notable incongruities that stand out in a county where the majority of First Romanesque churches show only minor variations to a system of building which had its roots in the 10th century. Elsewhere the trajectory of improvements in the mason's craft is marked by the use to better effect of the poor materials at his disposal. This allowed aesthetic norms established at high-status Benedictine sites to be adopted by local communities without necessitating an investment in the more demanding structural aspects of the new architecture. A clear distinction can thus be drawn between the uptake of 'style' and 'system', with only the more prestigious sites of Conflent furnishing evidence of a direct transmission of new techniques from cloister to countryside.

Appendix

A *Marca* [col.788] dated 855

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Arrival of Protasius & colleagues at Exalada

In nomine patris & filii & spiritus sancti. Nos in commune fratres Protasius Archipresbyter, Sancoli Presbyter, Recosindus Presbyter, Victor Presbyter, Atila monachus, Baro subdiaconus, nos omnes, qui simul in una fide venimus, facimus carta Deo omnipotenti & monachis qui sub jugo regulari servire cupiunt in monasterio sancti Andreæ post obitum nostrum in locum Exalata. De nos autem qui supervixerit fratrem suum retineat juri suo in eleemosynam nostrum & ibidem serviat & usuare faciat dum vivit, & post obitum suum relinquat ad ipsa Ecclesia vel monachos aut Exalata Abbati qui à die illo erunt; quia hoc facimus necessitate timendi. Certum quidem & manifestum est enim quia sic placuit animis nostris & placet, nullius cogentis imperio nec suadentis ingenio, sed proprio expontanea hoc nostra elegit voluntas bona, ut conversare debeamus in suburbio Elenense, in valle Confluentaria, in Ecclesia sancti Andreæ locum Exalata. Et donamus de rebus nostris præfatis. Ego Protasius Archipresbyter dono cavallo uno & mulo & asinos duos & vacas quatuor cum suos vitulos & oves & cabras XXX. & porcos XXVI. & equas III. & boves II. & canes II. ob inde & de vestimenta frisis cum vistitos & vebtas II. & capas V. & sariciles XIII. & leutios VIIII. & bracas talgatas XXXIII. & sutolares parilia XV. & solarum parilia XL. & cangaves duas lanias & una saricia, & plumacos saricios V. & septelanios tapites II. cupertorio siricio I. & vellatas XI. & quadincos XL. & vadelincos VIII. curtinas II. pellicas VI. & suscinta parata una, & camisos III. & planetas III. & stollas III. franciscas, & mapas quatuar parilia, & tualias IIII. & saccos VIII. & utres VIII. & bulgas dua parilia, & soccas VIII. & organas parilias IIII. Et de alaude dono in villa Tauriniano casas IIII. & curte & hortos VI. & vineas XII. & vinum qui exinde exibit quinales CCC. & sunt tonnat VIII. & de annona modii XXX. cum omnia usibilia ligni & ferri quod necesse habet homo in omnibus, vel terries cultis vel incultis, cum arboribus, cum exia vel regressia sua quod justè & rationabiliter in fines suos hebere debeo. Et reservo in potestate mea villare Coxano & isto argento solidos CXLVI. ut ad obitum meum manibus meis dare faciam pauperibus aut cui voluero. Aliud verò superiùs insertum post obitum meum fit in potestate ipsius Ecclesiæ. Nam & ego Recosindus Presbyter dono cavallo uno & asino & bove & vineas II. in Arriano in locum ubi dicitur ad cruce, & libros V. & lectum meum & porcos VI. & leutios II. & de annona modios XX. & de vino quinales XL. Hæc omnia dono sicut superiùs insertum est. Nam & ego

Victor Presbyter dono vacas III. & vitulos II, porcos II. & libros IV. & vineas III. quas vobis piduavi vel in præsenti tradidi, quod senior meus Protasius mihi dedit in villare Coxano, vel portionem meam & lectum meum vel ferramenta dono sicut superiùs scriptum est. Nam & ego Atila dono equas III. & boves II. & vakas II. & freno mulare I. & fatiro I. & lectum meum & libros III. & stola polimita una, & vinea I. quod habeo cum Vvitidane fratre meo, qui infrontat in strata & in castro Tarraça & in ecterre Terraferente modiatas VIIII. qui infrontat in terra salustrii, & de alia parte in terra Singerici, de tertia parte in terra Saporoni. Hæc omnia ab omnem integritatem ad proprium sicut superiùs scriptum est. Nam & ego Baro subdiaconus facio similiter de omnia quod habeo vel habere potuero. Denique de ab hodierno die & tempore usuandi vel exfructuandi unus ab alio quod supervixerit fratrem suum habeat potestatem ex eo vivere, post obitum extremo nullus præsumat, fet in jure ipsius Ecclesiæ insistat vel ad monachis ibidem servientes vel Abbatibus. Et si nos dejecti fuerimus de isto loco ubi perrexerimus ad alium monasterium, omnia nostra in potestatem retineamus, faciamus ex inde quod voluerimus vel quod conquirere potuerimus. Et si nos omnes in isto loco dies nostros deduxerimus, & hic vita distincta fuerit, res præfatas cum omnia quod superiùs scriptum est remaneat in Ecclesia sancti Andreæ sicut superiùs scriptum est. Sane si quis, quod fieri minimè credimus esse venturum, quòd si nos supradicti aut aliquis de successoribus nostris, vel ulla subposita vel subrogate persona qui istum factum nostrum inrumpere conatus fuerit aut fuerimus, inferant vel inferamus juri vestro vel Ecclesiæ superiùs script ista omnia dupla & inmeliorata perpetuis habitura & iste cartas firmis permaneat. Facta scriptura usufructuari nostra unus ab alio sub die XVII. Kalendas Augusti anno [xv] regnante Karulo rege. Protasius Archipresbyter, qui istum factum in mea voluntate editum feci ut dum vivimus ex ea vivimus; & dono libras XV. Rescescuindus Presbyter subscripsi. Victor Presbyter subscripsi. Baro subdiaconus subscripsi. S. Bosoni. S. Senderedi. S. Laurentii testium. Sanzoli Presbyter, qui hanc scripturam jussus scripsi & in mea voluntate edita feci & subscripsi die & anno quod suprà

B Catalunya carolingia [88] dated 871

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Charter of Charles the Bald

In nomine sanctae et individuae Trinitatis. Karolus gratia Dei rex. Omnibus episcopis, abbatibus, ducibus, comitibus, vicariis, centenariis, actionariis, missis nostris discurrentibus vel cunctis fidelibus sanctae Dei ecclesiae nostrisque, praesentibus scilicet et futuris, notum

sit quia si erga loca divino cultui mancipata tuitionem impertimur, non solum regale consuetuninem exercemus verum etiam ad aeternae retributionis mercedem nobis talia facta profutura confidemus. Proinde comperiat omnium vestrorum praesentium scilicet et futurorum solertia quoniam sacerdotes septem liberi genere, id est, Witiza, Protasius, Victor, Lucanus, Guntefredus, Reccewindus, Sanctiolus, venientes ex parochia civitates quae vocatur Orihel, accepta a Wisado ipsius civitatis episcopo licentia verum et adjutorio, sed et alii post eis conjuncti homines liberi, Attila, Baro, Leudomirus, cum reliquis eis se conjungentibus, secesserunt ad locum qui dicitur Exalada juxta fluvium nomine Tete, in capite vallis Confluentis, et emerunt de rebus propriis et facultatibus fidelium sibi liberalitate conlatis locum servis Dei aptissimum ibique construxerunt monasterium in honore sancti Andreae apostoli sed et aliorum apostolorum Petri, Johannes et Thomae, quod monasterium ditaverunt emptis, communatis vel conlatis sibi rebus in locis subter positis, id est, in Tresvalles, in Ocenias, in Kanavellas cum finibus suis, terris et vineis, in Lare, in Coxiano, in Cotaleto, in Edio, in Saltone, in Maradianas, in Agnerra, in Tauriniano et in monte Aliberga, ipsumque monasterium, Deo cooperante, ad effectum usque perduxerunt; qui locus supradictus est situs in confinio Ceridaniae marchiae nostrae sub diocesi Fredali Narbonensis archiepiscopi et parrochia Audesindi Helnensis episcopi. Unde nostram excellentiam petierunt ut eundem locum sub nostra immunitate et defensione ac mundeburde susciperemus et per praeceptum nostrum illis et suis successoribus et eidem loco praesentibus et futuris temporibus tale privilegium concedamus quatenus post Deum sub manu et potestate nostra ac successorum nostrorum ipse locus et inibi habitantes sub regia potestate perpetuo maneant et in eodem loco degentes sub monastico ordine vivant atque ut licentiam eligendi abbatem ex seipsis secundum regulam sancti Benedicti omni tempore habeant et ut nullus paraveredum aut pascuarium vel mansionaticum aut aliquam indebitam exactionem ab eis vel suis successoribus de eodem loco vel de rebus ad eundem locum pertinentibus tam praesentibus quam futuris temporibus exigat sed quiete liceat eis pro statu sanctae Dei ecclesiae et regis ac regni stabilitate orare. Quorum petitionem rationabilem judicantes eis in omnibus annuere judicavimus decernentes ut tam praesentibus quam futuris temporibus idem monasterium cum omnibus rebus ad se nunc pertinentibus et quae futuris temporibus ad eundum locum conlatae fuerint vel quas in eodem monasterio degentes juste et rationabiliter acquirere quocumque modo potuerint, privilegium et immunitatem habeat et sub defensione ac mundeburde regiae potestatis permaneat et in eodem loco habitantes

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sub monastico ordine vivant et licentiam eligendi ex seipsis secundum regulam sancti Benedicti abbatem omni tempore habeant; in cujus abbatis regulari ordinatione episcopus ipsius civitatis, in cujus parrochia est monasterium nullam difficultatem exhibeat vel quamcumque exactionem contra regulas sacras eidem loco imponat nec pro ordinatione ecclesiasticorum ministrorum vel pro largitione consecrati olei vel chrismatis quodcumque emolumentum contra canones sacros ab abbate vel a monachis monasterii ipsius requirat. Et nullus judex publicus vel quislibet ex judiciaria potestate seu aliquis ex fidelibus regni nostri vel successorum nostrorum paraveredum aut pascuarium vel mansionaticum aut aliquam indebitam exactionem aut paratas faciendas vel fidejussores tollendos aut homines ipsius monasterii injuste distringendos vel paraveredos aut ab eis vel ab eorum successoribus exigat necque in ecclesias aut ad loca vel agros seu relicas possessiones memorati monasterii ubi et ubi constitutas quas nunc habere videtur vel de cetero per futura tempora idem monasterium adquirere potuerit ad causas audiendas vel freda exigenda aut mansiones aut paratas faciendas vel fidejussores tollendos aut homines ipsius monasterii injuste distringendos vel paraveredos aut pascuarios exigendos nec ullas redibitiones vel illicitas occasiones requirendas aut quamcumque inquietudinem ipsi loco et ejus habitatoribus inferendam licentiam habeant vel ad ejus monasterii loca ullo umquam tempore ingredi valeant vel exactare praesumant, sed liceat memorati monasterii abbati suisque successoribus et omni congregationi res praefati monasterii cum omnibus quae in sua ditione habuerint sub immunitatis tuitione quieto ordine possidere atque pro statu sanctae Dei ecclesiae et pro stabilitate regiae potestatis et regni nostri atque pro populo nobis subjecto Domini misericordiam exorare. Et ut haec auctoritas nostris futurisque temporibus Domino protegente valeat inconvulsa manere manu propria eam subter firmamus et de anulo nostro sigillari jussimus.

60 Signum Karoli gloriosissimi regis

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Adalgarius notarius ad vicem Gozlini recognovit.

Data nonas augusti, indictione .IIII., anno .XXXII. regnante Karolo gloriosissimo rege. Actum Doziaco palatio regio, in Dei nomine, feliciter. Amen.

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In nomine Domini. Nos omnes facimus cartas in monasterio Exalata donationis ac vinditionis ex naufragio periererunt simul una hora cum ipso monasterio. Tunc recoparamus sicut priùs ipsas cartas ad Protasio cum comparibus suis vel Ecclesiis qui remanserunt cœnobia sancti Andreæ, id est, sancto Germano & sanctum Iohannem vel monachis ibidem servientes præsentibus et futuris. Constat nos facere cartas, sicuti & facimus, nullius cogentis imperio nec suadentis ingenio, sed propria expontenea nostra hoc elegit bona voluntas, ut in suburbio Elenense, in valle Confluentana, ego Eldequisus & uxor mea Ello vindemus vobis in villa Tobese omnem portionem nobis debitam, exceptus ipsas vineas ex mediatatem subtus ipsa villa alia vinea quem tenet Saurus in arengo habeatis ad omnem integritatem, & Albareto portionem nostram ad omnem integritatem. Et accepimus pretio bove uno valente solidos septem. Nam & ego Sisicutus & uxor mea Iucilo & Quilgiselus donamus omnem hereditatem nostram sicut priùs. Vindimus in Talatio domus in Ocenias vel infra fines illorum, & medietatem in Kanavellas vel infra fines suas, sive in vineas, sive in terras; & accepimus pretio bove uno. Iterum & ego Sion & uxor mea Ranosinda vindimus vobis in villa Emne ipsa casa & ipsa terra quod comparavimus de Anastasia, & alia terra de Similare, & alia de Sancoli, & alia de Sanlane, & alia de Herelde, & vinea de Ansemundo, ubi dicunt Caballos. Hæc omnia vindimus ad omnem integritatem. Et accepimus ad Castello vinea qui fuit sauri ex medietatem, & horto cum suos arboris quod comparavimus de Anestegsa, & accepimus capras quatuor. Iterum & ego Spanla & uxor mea Susanna vindimus vobis subtus villa Canavellas, ubi dicunt ad Cassanos, petias duas de vinea quod habemus cum fratre meo Bellone, & super ipsa villa perias duas de terra quod vobis insinuabimus & penes vos retinitis. Et in villare Lare omnem hereditatem nostram de comparationem vel de parentorum nostrorum vindimus ad omnem integritatem; & accepimus pretio equa ana, quod dedimus domno Mirone Comite, & solido uno. Nam & ego Amarella facio immeliorationem de ipsa luctuosa filiorum meorum, de hereditate illorum, quod habere videntur de patre illorum Principio. Dono cognato meo Savicello tertiam partem in villa Emne vel in aliis locis ubi inventum fuerit. Et ad supradictas Ecclesias de ipsa hereditate quintam partem vel quod comparavi, vel quod ex donitum viti mei habeo, dono propter remedium animæ meæ. Ceterùm ut est tam in domibus, vineis vel terries, hortis vel arboribus, trado in eleemosyna viri mei Principii ad Ecclesias suprascriptas vel monachis ibidem servientes; & accepi honores

de ipsos monachos, dum vivo, vinea media ad castello quod fuit Sauri vel de fratres suos; & trado cum omni voce oppositionis meæ ad proprium. Nam & ego Geseafredus & uxor mea Honesta, qui filius non generamus, tradimus hereditatem nostram in Emne propter Deum & remedium animæ nostræ ad Ecclesias superiùs scriptas vel monachis ibidem servientes ad proprium. Et vindo ego Honesta in Lare omnem hereditatem meam; & recepi pretio solidum unum. De nos autem superiùs scriptos, qui fecimus istam vinditionem, de isto pretio quod superiùs resonat penes vos nihil remansit, & est manifestum. Nos verò qui facimus carta eleemosynaria in propria voluntate Deo & sanctas Ecclesias superiùs scriptas, ut adjutorium fit ad ipsos monachos qui restaurare cupiunt in congruo loco domum sancti Andreæ. Nos autem superiùs scripti cum omni voce apositionis nostræ conquestum vel ad conquirere de nostro jure in jus supradictis Ecclesiis tradimus vel monachis ibidem servientes præsentibus & futuris cum omni exia vel regressia illorum in fundus possessionis ab integer. Sanè fi quis, quod fieri minimè credimus esse venturum, quòd nos suprascripti aut aliquis de filiis, fratribus, vel de heredibus nostris, vel quislibet homo ex aversa veniens supposita vel subrogata persona, aut venerimus, inferant vel inferamus in jure istis Ecclesiis vel monachis ibidem subjectis ista omnia dupla & immeliorata perpetim habitura, & in antea iste factus noster firmus permaneat. Facta scriptura vinditionis ac donationis sub die IIII. Nonas Novembris anno primo regnante Ludovico Rege. Sesegorus subscripti. Signum Icilone. Signum Gulgiscli. S. Sion. S. Ranosinda. S. Eldequisi. S. Ellone. Spanili subscripti. S. Susanna. S. Amarella. S. Geschafredi. S. Honesta. Ego Durabilis & filias meas Ermenella Marcharida, qui fuerunt genitus de Aspidio vero meo, facimus similiter cartam donationis de ipsas terras nostras qui sunt in villa Canavellas, quod vos ipsi fruges habuistis per donitum eleemosynarum viri mei Aspidii sive nostra, quod vos ipsi penes vos retineatis, & in Lare in serra de Felectu petias tres, unde receipt pater noster Aspidius dinarios quatuor, & est manifestum, habeatis potestatem vos monachi servientes suprascriptis Ecclesiis ad proprium, sicut superiùs insertum est, pleniter firmamus. S. Duralibis. S. Ermenellas. S. Margarida. Omnes superiùs scripti simul in unum, qui istum factum fecimus sicut superiùs scriptum est, & testes tradimus ad roborandum. S. Lanchoardi. S. Dochoni. S. Ariani. S. Eugenii. S. Saturnini. S. Vvadamiri. S. Vvistrimiri, testium. Eldesindus Presbyter, qui hanc cartam venditionis ac donationis rogatus scripsi & subscripsi die & anno quo suprà.

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In Dei omnipotentis nomine. Ego Protasius gratia Dei & seniori nostro ex cœnobio sancti Germani benedictus Abba, dum jacerem in ægritudinem deprehensus timens casum humanæ fragilitatis, nec, quid absit, repentina & absque memoria mihi perveniat mors, propteria hunc testamentum eligo, quem testamentum Eldesindo Presbytero rogavi scribere vel jussi. Et commendo per consilio fratrum meorum ad domno nostro Mirone precentellissimo comite, supplicans omnes obnixè ut domnus noster & senior ne indignet recipere factum nostrum, quia illum recognoscimus adjutorem & defensorem & datorem rerum suarum Ecclesiam sancti Germani monasterium suum, ubi nos plena residimus ad mercedem vestram. Propterea, sicut Rex excellentissimus Karolus præceptum nobis fieri jussit ad mercedem vestrem, & commendavit nos per epistolam suam anulo suo firmatam in manus vestras, & salva est cum ipso præcepto, obinde ego servus vester, quem vos ad mercedem vestram erexistis cum fratribus nostris, & nos, ut vires habuimus, servi vestri sumus, sive secundùm Deus, sive secundùm speculum. Ego enim Protasius gratia Dei & vestra Abba, ut quandoquidem ab rebus humanis dicessero, debitumque naturæ reddidero, tunc ne indignet dominus meus servos suos cœnobio sancti Germani defendi, salvandi, atque fortiter castigandi, & eligendi Abbati ex se ipsis aut qualem vos pium aut dignum invenire potueritis, nec tardetis mittendi, ne fiant errati sicut oves sine pastore, & nec fiet vitius aut stirpatio monasterii, quod nefas est, quia jubente Domino non regnet peccatum in isto vestro monasterio, furti, adulterii, homicidii, comedendi carnes, nec peculiare habentes, sed est usus orandi & jejunandi & laborandi, sicut docet regula profutura. Denique domnus noster venerabilis senior tali exhibeat de ipso cœnobio ut merces vos consequatur ante tribunal Christi, & ego vel in minimo remedium invenere possim: quia per Die & vestram honorem quinquaginta monachos & viginti famulos cum adjutorio Dei & vestro ego adtraxi cum omnibus rebus nunc pertinentes Deo & vobis commendo, ut Deus vos conservet. Et volo.....per factum vestrum exercendi bona in Ecclesia quod vos erexists cœnobio facto mercatis ante Deum adipisci præmia. Supplicamus præsentia domni nostri ut audiatis conredum monasterii hujus vestri. Sunt apud nos quingentæ oves & centum animalia & quinquaginta jumenta & porcos quadraginta & caballos duos & asinos quinque & boves viginti & libros perfectos xxx. & vestimenta obtima Ecclesiarum quinque parilia, de vestimenta quoque usu monachorum plenita ad sufficientiam illorum, & de victu tritici CCCLXV. modios appiliarios, c. ferramenta vel vascula plenius est in vestro monasterio qui in manus vestras est traditus. Ecclesias verò quas nos ipsi per vestro adjutorio fundavimus sive cellulas, & vos rogante consecratæ sunt ab Episcopo cum vestro adjutorio, & rerum vestrarum dotastis, terries & vineis, argentum vel vestimentum vel animalibus, nec permittatis perire per incuria, sed pleniùs potestate perfecta ad Dei servitio vel fidelitatem facite ibidem homines monasticè vivere & rectorem ibidem constituere sicut Rex præcellentissimus per epistolam suam vobis mandavit & præceptum nobis fueri jussit. Quod si haec feceritis, placatum Deum habebitis in die adventus sui. Quia apud nos non retinemus ex fisco nihil nisi proprium alodem nostrum & vestrum, quod nobis dignè tradidistis in elecmosyna vestra & genitorum vestrorum. Et taliter agite vivificè, domne senior, ut nullus præsumat præfato mansterio unquietate, sed quietè liceat ipsos monachos pro vobis orare & in isto seculo dilectet Deo & vobis servire. Et quid dicam plura? Sapienti parva sufficient. Et si ista commendatione quod vobis Rex præcepit, & nos fideles vostri, qui in manus vestras traditi sumus, fieri volumus, aliquis aliquid impedire aut contrariare voluerit, ips monetate, sicut Rex præcepit, vobis componere faciat, & in antea iste factus firmis & stabilis permaneat. Facta precatione servorum vestrorum Idus Septembris anno primo regnante Ludoico Rege. Protasius ac si indignus gratia Dei Abba, qui mea voluntate vel fratrum istum factum edidi & subscripsi. Daniel Presbyter subscripsi. Gontefredus Presbyter subscripsi. S Asenarii. S Vimiriami. S Sefuldi. S Eldevisi. S Oiritioni. Eldesindus Presbyter, qui istam cartam scripsi & subscripsi die & anno quo suprà.

E Marca [col.853] dated 941 Transfer of

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Transfer of property at Fuilla by countess Ava

In nomine Domini. Ego Ava Comitissa & filiis meis Seniofredus Comes, & Vvifredus Comes, & Oliba Comes, & Miro Levita, nos simul donamus in unum, ut pius & misericors sit Deus in peccatis nostris & in peccatis Mironi Comiti genitori condam nostro bonæ memoriæ. Propterea jam nos suprà nominati concedimus atque tradimus ad domum sancti Michælis archangeli, cujus basilica sita est in suburbio Elenense, in valle Confluentana, in locum quem vocant Coxano, tradimus ad jamdictum monasterium alodem nostrum qui est in jamdicto suburbio Elenense, in villa quae vocant Fuliano, quem habemus per carta emptionis Andelici condam, id est, casas, curtes, horteis superposita, hortos duos cum arboribus, condaminas tres, vinea una obtima, cum exia & regression illorum, & nihil exinde ad opus nostrum reservamus, sed sicut obtinemus ab integrum concedimus. Facta ista carta donationis XIII.

Kalendas Iulii anno VI. regnante Ludovico Rege filio Karloni. Ava. Seniofredus Comes. Vvifredus Comes.

F Marca [col.864] 951 (but dated 950) Papal confirmation of possessions of Cuxa

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Agapitus Episcopus servus servorum Dei Gondefredo religioso Abbati venerabilis monasterii sancti Germani atque Michaëlis situm in valle Confluente in locum qui vocatur Coxano, & per te tuisque successoribus Abbatibus ejusdem monasterii in perpetuum. Cùm magna nobis sollicitudo insistit, cura pro universis Dei Ecclesiis, vigilandum ne aliqua necessitatis jactura dispendia consequantur. Igitur quia Soniarius religiosus Presbyter & monachus vice vestra ante nostrum præsentiam veniens postulavit à nobis quatenus confirmatemus tibi tuisque sucessoribus Abbatibus supradictum monasterium in integrum cum omnibus finibus suis, terminis, & adjacentiis, suisque omnibus pertinentiis in perpetuum, inclinati tuis precibus pro omnipotentis Dei & sancti Petri amore jamdictum monasterium cum finibus & suis terminis, sicut incipit à parte orientis, à fronte per summitatem serræ quæ pergit de Bovaria ad jovem de Clerano, & vadit ab ipso monte que dicitur Laccarias, & sic vadit per ipsas Laccarias usque in monte Canigone, & à meridie afrontat in monte Canigonis, & descendit per serra super Miliarias, & pervenit ad crucem super curtes, deinde ad chero Clarinto, & pervenit per summitatem de serra usque in rivo Merdario, & ab occidente ipsa serra de chero Clarinto, & pervenit in rivo Merdario, & ducit usque in fluvium Tede, & à parte circi afrontat in strata publica quæ dicunt ad duas sorores, & pervenit per ipsa via publica usque in Litterano, deinde subtus sancto Felicio, & pervenit usque in alode sanctæ Mariæ, & villa Tauriniano cum ipsa Ecclesia sancti Fructuosi, cum decimus & premitiis, & Ecclesiam sancti Martini de Clerano, & Ecclesiam sancti Andreæ quæ est fundata in villa Castellano cum suo alode, & villam de Torrente cum finibus & terminis, sicut in scripturis veridicis vèstris resonat, & valle Taresago, & curtes, & cella sancti Vincentii cum suo alode, sicut in vestris continetur scripturis, & alode Tonegale, Manzunculas, Ocenias, Tres valles, Lare cum Ecclesia sancti Andreæ, cella sancti Thomæ cum suo alode, Ecclesia sancti Petri quæ est fundata in villa Inforcadis, Laguna cum sua Ecclesia & alodiis vestris in his locis. In comitatu Rossilionense, in villa Miliarii, in Camelas, in Relano, in sancto Felice, in valle Ventosa, in monte Auriolo, in villa Insula, in valle Lotas, in Puio Nadalino, in villa Vinçano, & in Saorla, in Arbussolas, & in Planiçolas, & Interrivos, & in valle Molegica, in villa Orto Falguerias, in villa Arriano, in villa Foliano, in valle Saorra, in Torresindo, in Pino, & in Campelias, & in Segondaniano, in Iuloss, & in Flazano, & in Angerro, & in Enne, & in Porciliarios, & in Evole, in Altino. Et in comitatu Cerdaniense, in villa Sallagosa, in Onzes, in Annes. In Fenioletense, in villa Tavernulas, in Sauriniano, sive in Perolas, Vallemagna cum sua Ecclesia, & in valle Stavia. In comitatu Bergitano, in ipso villare de Gilmari, in ipsa villa de Canes, & in ceteris locis ubicunque res monasterii rejacent, & in comitatu Rossilionense, & in valle Confluentis, & in comitatu Cerdaniense, & in comitatu Fenioletense, vel in Bergitano, in his locis supradictis & in comitatibus, quantum ipsum monasterium habet & in scripturis vestris continetur vel resonat, & in ante auxiliante Deo acquisituri estis, cum finibus & terminis, limitibusque vestri monasterii. Simul & concedemus vobis de vestris locis primitias & decimas & oblationes concedimus recolligendas, jamdictum monasterium cum omnibus suis pertinentiis juris sanctæ Romanæ Ecclesiæ, cui Deo auctore deservimus, vobis per hujus privilegii feriem vestrum monasterium & locis seu Ecclesias ubique pertinentes, & à præsenti nona Indictione in perpetuum tibi tuisque successoribus servorum Dei inibi commorantibus cœnobiticam vitam ducentibus stabilimus Dei cum timore regendum, detinendum, & securis atque quietis sub norma & apostolica tuitone permanendo; sed sub nullius aliæ cujusquam potestatis subicimus. Item apostolica auctoritate jubemus Christi fidelibus benignè secundùm Deum hospitio recipiendis. Et tu cùm ab hac luce fueris subtractus, à nulla persona ibi eligatur Abbas, nisi de ipsa congregatione eligatur Abbas secundùm Deum à prædicta congregatione. Præcipimus autem apostolica auctoritate ut nulla magna parvaque persona aliquam vim aut invasionem in supradicto monasterio aut in suis rebus unquam facere præsumat. Pro quo sub divini judicii obrestatione & anathematis interdictione promulgantes decernimus ut nulli unquam nostrorum successorum Pontificum vel nulla magna parvaque persona, cujuscunque ordinis fit, Episcopus excommunicet, & hujus nostri apostolici privilegii frangere. Nam, quod non credimus, qui aliter agere præsumpserit, sciat se excommunicatum & anathematis vinculis innodatum, & à regno Dei alienatum, & in voraginem tartareumque chaos demersus cum impiis deficiat. Que verò custos & observator extiterit, gratiam benedictionis à Christo Domino Deo nostro multipliciter consequi mereatur. Scriptum per manum Leonis Notarii regionarii & scriniarii sanctæ Romanæ Ecclesiæ in mense Decembrio per Indictionem supradictam. Benevalete.

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In nomine sanctae et individuae Trinitatis. Ludovicus divina propitiante clementia Franchorum rex. Si locis sacris et divino cultui mancipatis ob amorem Dei sactorumque ejus opem aliquam conferimus, opportunum ab ipsoque omnium bonorum remuneratore pro certo confidimus fore nobis recompensandum. Quocirca omnium sanctae Dei ecclesiae fidelium nostrorumque, tam praesentium quam et futurorum, noverit sollertia quoniam ad nostrum dirigens praesentiam Gondefridus, abbas monasterii quod situm est in pago Confluente in loco qui dicitur Coxiano sub honore sancti Germani et sancti Michaelis, quendam suorum monarchum nomine Suniarium, nostram humiliter expetiit reverentiam quatinas eum, monachos suos una cum praescripto monasterio et cellis sibi pertinentibus aliisque omnibus rebus sub nostrae immunitatis tuitione recipere dignaremur. Cujus inquam petitionibus libenter adquiescentes, eundem abbatem cum monachis suis et jam praememoratum monasterium cum omnibus rebus seu villaribus ac villis ibidem pertinentibus sive cellis sibi subjectis, quarum una vocatur cella sancti Thomae cum suo alode, alia sancti Vincentii cum suo alode, et unam ecclesiam in honore sancti Petri in villa quae dicitur Inforcatis, et alteram ecclesiam in honore sancti Andrae cum villa quae vocatur Castellano, item ecclesiam de Valle Magna cum alodibus, villam quoque Tauriniano cum ecclesia, item ecclesiam sancti Martini quae est in villa Clairano, quae omnia supramemorata et alia quae in aliis pagis videlicet in Cerdaniense, in Fenoliotense, in Bergetano, in Rosselionense, in Valle Asperii habere dinoscunter, sicut in illorum privilegio et in cartis eorum continetur, cum omni earum omnium rerum integritate, sub nostra defensione, sicut dictum est, omnino contra omnium inquietudines hominum constituentes, praecipimus atque jubimus ut nullus judex publicus vel quaelibet judiciaria potestas in ecclesias aut loca saepedicti monasterii et cellularum sibi subjectarum, ad causas judiciario more audiendas vel freda exigenda vel paratas faciendas aut fidejussores tollendos vel illorum distringendos homines aut ullas redibitiones aut illicitas occasiones requirendas ingredi audeat, sed necque viaticum necque portaticum necque silvaticum necque pascuarium necque teloneum aut ullum illicitum debitum exhigere praesumat, sed cum cellis supra memoratis, villaribus aliisque omnibus rebus praenominato monasterio pertinentibus, in quibuscumque consistant locis, necnon etiam cum omnibus possessionibus quas juste ad praesens possidere videntur simul cum his quas divina pietas eidem loco per suos quosque fidelis augere voluerit, liceat memorato abbati suisque successoribus regulariter viventibus et monachis inibi secundum regulam sancti Benedicti degentibus quiete vivere easdemque res cum omni securitate et [sine] minoratione tenere et possidere; heremum quoque in pagis praenominatis in quantum voluerint extirpare concedimus ut pro nobis seu stabilitate totius regni nostri secure divinam valeant exorare misericordium. Et quando Dei vocatione memoratus abbas de hac luce migraverit, licentiam habeant ex semetipsis omni tempore abbatem eligere. Et ut haec nostrae auctoritatis confirmatio perpetualiter obtineat firmitatis vigorem, manu propria subter firmantes, anuli nostri impressione corroborari praecipimus.

Signum domni Ludovici gloriosissimi regis.

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40 [Oydilo] cancellarius ad vicem Artaldi archiepiscopi relegit et subscripsit.

Actum Reme civitate .II. nonas februarii, indictione .VI. anno .XVI. regnante Ludovico rege glorioso.

H Marca [col.868] dated 953 Dedication of new church of Saint-Germain at Cuxa

Cunctipotenti Regi gubernante sive præsidenti in arce poli, qui principio ex nihilo verboque creans omnia sedulèque gubernans, sceptrum regimen perpetim affatimque ineffabiliter possidens, trophæa verba delegerans, quatuor postmodem climata bipertito orbe diffuso, ejusdemque verbo incarnate, Apostolus suos binos ubique exercitatione prædicationis ingerens, ut sancta scilicet Ecclesia paulatim vigore concepta de die in diem crescendo proficeret sine ruga aut macula, dominicos filios procreandos adoptaret, mox per universam terram crevit; ut universæ scilicet Ecclesiæ, quæ per universo orbe longe lateque a fidelibis Dei constructæ sunt vel cotidie construuntur, propter malivolos vel discordantes sive contradicentes præcepta dominica velque evangelica, proprium habere sponsum, id est, Christum & in dotis titulum fidem assignatam. Ob hoc igitur sanctorum orthodoxorum patrum instituta veniens vir inlustrissimus in juvenili ætate institutus, sanctoque spiramine spiritu compunctus, non infimus, sed nobili genere ortus, Seniofredus divina suffragante clementia Comis in valle vocitante Confluente, in locum cœbenii qui est fundatus in honore sancti Michælis archangeli & præcipuique sancti Germani confessoris, cujus vocabulum est Coxano; & invenit ibi Ecclesiolam parvulam ex luto & lapidibus confectam in honore supra nominati S. Germani confessoris, quod est caput Ecclesiæ ipsius. Idemque tactus dolore intrinsecus, tacite cogitavit qualiter opus perficere potuisset, qualiter ad cælestis regni fastigial pervenire valeat. Propter hoc non ingenio humano, nec arte hominum, sed divino spiritu sancto inlustrante destruxit præfatam Ecclesiolam S. Germani confessoris, ædificavit eam mirifice ex calce & lapidibus & lignis dedolatis mirifice propter spem veniam remunerationis bonæ memoriæ domni Mironi Comiti generatoris sui sanitatemque ex remissione Auvanæ genitrice sua, necnon & Olibane fratre suo, simulque & propter veniam peccaminum suoram, ut ante Deum mercatur adipisci regna cælorum. Post ædificationem sancti istius templi adveniens vir reverentissimus sanctae Elenensis Ecclesiæ Riculfus humilis episcopus ob deprecationem domni Seniofredi inlustrissimi Comitis, simulque & genitrice sua & fratribus ad consecrandam vel dedicandam Ecclesiam quam prælibatus Comes Seniofredus honorifice reædificavit in honore sancti Germani Christi confessoris, conglobate sunt aurem simul pariter in diem consecrationis vel dispensationis domnus Riculfus præful, simulque & Gondefredus Abba, necnon & Auva Comitissa cum filiis suis, id est, Seniofredo inlustrissimo Comite & Olibane Comite fundatores vel reædificatores prælibata domo sancti Germani. Aderant in eorum obsequio viri religiosissimi tam etiam Canonici quam monachi sive etiam fideles laici, quorum continetur subtus caterva. Dono ego Ava Comitissa in die dispensationis fabricatæ Ecclesiæ in honore sancti Germani confessoris Christi vineas meas quod habeo in villa Artiano vel in ejus terminis. Et ego Seniofredus humilis Comes dono similiter a prælibatam domum sancti Germani omnem hereditatem quod habeo in villa Cirifago vel ejus termines, qui mihi advenit per cartam emtionis. Et ego Oliba Comes similiter dono a domo prælibati sancti Germani alodem meum quod habeo in villa Savorra vel in ejus termines, qui mihi advenit per cartam emtionis de homine nomine Bersindo. Et ego Guitardus dono a præfatum sancti Germani campo uno quod habeo in termino de Asperi; & afrontat de uno latus in ipsa via qui discurrit ad Confluente vel in Rosselione, de alia parte in via qui vadit de Lotas ad isola de Terreia de me donatore, & de quarta parte in terra qui fuit de Constantino qui fuit quondam. Et ego Bernardo Vicecomes dono in die consecrationis a præfatam domum sancti Germani omnem hereditatem meam quod habeo in villa Cirifago vel in ejus termines, & in villa Saltone vel in ejus termines, qui mihi advenit ex voce parentum meorum, propter remedium animæ genitori meo & pro veniam peccaminum meorum. Et ego Isnardus similiter dono a supranominatum domum sancti Germani vinea quod habeo in valle Confluente in termino de Vincano, qui mihi advenit par cartam emtionis. Et est ipsa vinea in ipsa gaiardia. Habet afrontationes de tribus partibus de riba, de quarta in vinea sancti Michaelis. Et ego Seniofredus Comes dono in diem dedicationis prælibatæ Ecclesiæ ad luminaria concinnanda

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in honore sancti Germani confessoris Christi & sancti Michaelis archangeli tertiam partem de cera qui mihi advenit de pascuarium de valle Confluente. Et ego Recosindus dono in diem dedicationis fabricaræ Ecclesiæ in honore sancti Germani confessoris Christi & sancti Michaelis archangeli vinea una qui mihi advenit ex comparatione in termino de Savorla. Hæc omnia nempe superius scripta nos donators, fundatores, vel reædificatores donamus, cedimus, vel tradimus a suprascriptam domum sancti Germani & isto præsente domno Gondefredo Abbate & monachis sub ipsius regimine constitutes, tam etiam præsente Abbate & monachis & successoribus eorum qui in jamdicto cœnobio secundum regulam sancti Benedicti militaturi sunt, ut servatum in potestate habeant tenere & fructuare & redibitiones exigere sine alicujus contradiction. Quod si nos donators aut alia secularis contra hoc titulum donationis, traditionis, vel consignationis venerit ad minorandam vel diluendam, non valeat quod requirit, sed fit culpabilis Deo & sancti Germani confessoris Christi, & in præsenti seculo quod tenemus legique nostræ in vincula...præfatæ res & quantum emelioratæ fuerint vel valere potuerint, & hoc titulum traditionis vel donationis inrumpi non permitattur, sed inconvulsum permaneat; & ut verius credatur, minibus propriis subter firmavimus vel corroboravimus. Et ego Riculfus sanctæ Elenensis Ecclesiæ humilis Episcopus dono in diem disponsationis fabricatæ Ecclesiæ decimas & primitias & oblationes fidelium de alaudem sancti Germani confessoris & sancti Michaelis archangeli nuncupante Vallemagna, ut Abbates vel monachi tam præsentes quam & successors eorum potestatem habeant eas usuandi vel distribuendi sicut regula sancti Benedicti edocet. Exarata est autem hæc scriptura donationis, dotis, traditionis anno incarnationis Domini DCCCCLIII. Indictione viii. die tertio Kalendas Augusti, anno Ludevici Regis XVIII. S. Riculfus Episcopus. Bonefatius Presbyter. Seniofredus, qui hoc titulum donationis fecit. Oliba Comis. Bernardus Viciscomes, qui hanc donationem feci. Isnardus, qui hanc donationen fecit. Obba Levita. Volueradus Levita. Sonifredus Levita. S. Bonellus. Arnallus. Lepardus. Amelius. S. Bernardus. Daniel Presbyter, qui hoc titulum dotis vel donationis scripsi & subscripsi die & anno quo supra.

I Catalunya carolingia [95-98] dated 958

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Charter of Lothair

In nomine sanctae individuae Trinitatis. Lotharius gratia Dei rex. Si fidelium nostrorum justis petitionibus serenitatis accomodamus, praedecessorum nostrorum regum consuetudines obtinemus. Quapropter notum sit sanctae Dei ecclesiae nostrorumque fidelium tam

praesentium quam futurorum industriae quod domina mea mater reginaque Girberga, per consensum nostrorum fidelium tam praesentium quamque futurorum, imperiali monitu accedens, ut quasdam res, scilicet monasterium in honore sancti Michaelis sive sancti Germani, cuidam abbati ipsius loci largiremus, nomine Poncius, nostram impulit mentem. Cui aequae monitiones, uti dignum est, obedientes, pro remedio animae nostrae ejusque placido audivimus affectu. Qua de re constat nominatim terra supradictorum sanctorum Michaelis scilicet Germanique, in valle Confluenti in locum Coxano. Habet autem jam dictum monasterium sibi vicinas ecclesias subditas in honore sancti Fructuosi sive sancti Martini cum parrochiis quae ad eas pertinent sive alodibus, quae habet terminus de uno latere ripam Merdarii, de alio in charro Clarinensi, de tertio montem Canigonem, de quarto montem Flamidium, de quinto ipsae turres Betses, de sexto montem Bovarium, de septimo usque ipsam stratam Franciscam et Petramfictam; et villam Clairano cum ecclesia et decimis et terminis et finibus suis, et villa Castellano cum ecclesia sancti Andreae cum decimis et terminis et finibus suis sicut in hac scriptura resonat quad fecit Suniefridus comes sancto Michaeli sive sancto Germano; et vallem Leco cum ecclesia sancti Salvatoris et habet terminum de uno latere ipsam Portellam, de alia ipsam Stelam, de tertia montem Stavellum, de quarta montem Caprariam, de quinta Labum Convivium, de sexta montem Cogollem, de septima villam Senariam; et villam Arbutiolam cum domibus et terris cultis et incultis, vineis, pratis, silvis, pascuis, aquis aquarumve decursibus, exitibus et regressibus et planitiolas sive terrades atque quoddarium, sicut Longobardus tenebat ante diem obitus sui; et villa Torrente cum terminis et finibus suis; et villa Tarasago cum terminis et finibus suis; in eadem valle, in villa nuncupante Fouliano sive Saurra, et iterum in Vernedo sive in Foliolos et in plurimis aliis locis, domibus, terris cultis et incultis, vineis, silvis, pratis, pascuis, aquis aquarumque decursibus, exitibus et regressibus; et in loco qui dicitur Inforcadus ipsa ecclesiam cum decimis et primiciis; et in alio loco qui dicitur Laguna cum ecclesia et decimis et terminis et finibus suis sicut in ipsa scriptura resonat quod dedit Suniefridus comes sancti Michaelis et sancti Germani, ipsum alodum habet terminos de una parte Pontum Novum, de alia ad ipsos molendinos ad Aqua Tebeda, de tertia ipsa Archa, de quarta ipsas Cales, de quinta a flumine Tede usque ad Oleta; et in alio loco ecclesia sancti Thomae cum terminis et finibus suis, Albareto cum finibus suis, Intervalles cum terminis et finibus suis et villa Lare cum ecclesia et terminis et finibus suis, Talazo cum finibus suis, Mazumculas cum finibus suis, Canavellas cum terris, vineis et finibus suis; et ipsum alodum de Vallemagna, ipsa villa cum ecclesia qui habet

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terminus de unam partem villa Leboraria, de alia ipso collo de Leboraria, de tertia parte ipsas Agulias, de quarta parte ad Eramala, de quinta in monte Canigone, de sexta ad ipsa Capraria, de septima ad Arbore Formoso, de octava a gurgo Anfalego; in comitatu Sardaniense, in loco qui dicitur Tollone cum domibus et terris et terminibus et finibus suis; in Baltarga ecclesia sancti Andreae cum decimis et terris et vineis; in Tartaria ecclesia cum decimis et terris et vineis sicut in ipsa scriptura resonat quod fecit Scluva ad sancti Michaelis et sancti Germani; in Sagane ecclesia sanctae Eugeniae cum decimis et primiciis; in Volvir, ecclesia sanctae Ceciliae cum decimis et primiciis et cum ipso poio, et habet terminus uno latere flumen Segure, de alia in terminio de Sagana, de tertia in Fontanaria sive in terminio villa Euviles, de quarta ecclesia sancti Martini; et in Ventoiola ecclesia cum decimis et primiciis; et in villa quae dicitur Evei domibus cum ipso alodo Adelildis sicut in ipsa scriptura resonat quem ipsa dedit sancti Michaelis et sancti Germani; et ipsum alodum Heiragolisa habet terminus de una parte flumen Araone, de alia strata quae pergit ubique, de tertia rivolum quae decurrit de villa Uri et ultra ipsum rivolum ipsa insula cum ipso prato, de quarta in villa Envegio; et in pago quae dicitur Fonelietensis, in loco ubi habetur ecclesia in honore sanctae Crucis, cum ipsum Arduum montem, cum ecclesia sancti Laurentii et ceteris aliis ecclesiis cum decimis et primiciis earum et cum ipso alode quae habet terminus de una parte Bucertedo, de alia Fonte Cuberta, de tertia ad ipsa Wardiola, de quarta Caucano, de quinta Aquas Bonas, de sexta Toliano, de septima Fonte Merdosa, de octava in Cugulante, de nona a Plaido Lupino, de decima ipsas Scales, undecima in Verzellia, duodecima a fonte Salvanore, .XIII. a Tribio, quartadecima a Roca Rogia, .XV. a campo Gerigo, .XVI. Sidinolas; et in comitatu Bergitanensi, in loco quae dicitur Spugiola, ecclesia sancti Clementis cum decimis et primiciis, cum domibus et terris scilicet ac vineis, sicut Suniarius comes detinebat ante diem obitus sui. Quae omnia supra memorata et alia quae in aliis pagis, videlicet in Sardaniensi, Foliolatensi, in Bergedano, in Rosolionense, in Valle Asperi vel in ceteris comitatibus quos hodie retinent vel Deo propiciante adquirere potuerint per scripturas emptionis vel donationis sive commutationis aut per qualicumque voce habere dinoscuntur, sicut in illorum privilegio et in cartis eorum continetur, cum omni earum rerum integritate. Et ut hoc firmius stabiliusque retineant sine omni contradictione, hoc praeceptum exinde fieri jussimus et anulo nostro insigniri.

Signum domni Lotharii gloriosissimi regis.

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Gezo notarius ad vicem domni Artaldi archiepiscopi summique cancellarii recognovit.

Datum .V. idus februarii, regnante gloriosissimo Lothario .III. anno, indictione .II. Actum in Compendiaco palatio, feliciter. Amen.

J *Marca* [col.909] dated 974

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Consecration of Saint-Michel de Cuxa

Postquam salvator erpigena omnium ineffabiliter calcata morte resurgens et exuvias atri raptas de fauce profundi, evehit excelsum quicquid suscepit ab imis, et secum quod sumpsit ad dexteram Genitoris considens, habensque nova pompa triumphi, bissenos primum selectos divinos et consubstantiali irradiatos spiritu viros quadrifido destinavit in clismate, ut terrigenis fidem præmonstrarent sidereo recto calle scandere ad regna. At ipsi tearchica cum gratia Domini sui solerter adimplentes munia, omnigena populorum effera mansuefacta chorea Christi faboraliter manciparunt juga. Exin tridica atque unidica quibusque ut fas Dei formibus universaliter promulgata, cum jam jamque simbolica divina numinis farta passim replete forerent orrea, nonnulli per universa climata longe lateque ecclesias construxerunt, suisque rebus easdem ditaverunt, ut clericorum monachorumque coetibus ibidem degentibus Deoque, militantibus suorum sustentarentur alimentis, et egenorum necessitates eorum pellerentur opibus vel adjumentis. Quorum vestigia imitantes omnes ortodoxi sino matris Ecclesie edocati, eorumque documentis imbuta, opitulatione superni juvaminis fulti, fermiter sancteque prout potuere tenuerunt. Proinde igitur princeps quondam Seniofredus divino afflatus spiramine inter ceteros specialiter elegit quondam cenobiolum in honore Domini et invocatione almi ac beatissimi archangeli Mikælis in valle Confluentana in locum quem Coxanum dudum voluit vocitare vetustas situm, et licit exili fabrica constructum, gazis tamen fecit illum non mediocrem, monachis quoque undecunque collectis abatibus juxta morem regulæ ibidem constituit atque sublimavit, cujus morigeris monachi famularentur obsequiis. Illis quoque absentibus, locavit ibi abbatem egregium nomine Guarinum, qui ceu ut sidus lucidum affatim vibrare satagit cosmum. Prælibata igitur ecclesia Sancti Mikælis prius augusto fabricate fuerat machina giro, quod neque tunc poterat plebs veneranda capi. Sed bone rei consultum et presentis habetur vite subsidium et eterne remunerationis expetare cernitur premium; ob id ergo eidem princeps cum conniventia sui propii pontifices ceterorumque episcoporum, abbatum, clericorum, plebeiumque fidelium, colligens consilium, ut erga prefata ecclesiola in loco congruo in onore beati archangeli Mikælis honorabile construeret templum. Sed nec augusta prius subtraxit fana idem princeps vel abba; sed assidue in prisco peragens cerimonia templo, donec rite sequens consummaretur opus. Abbate quoque monachisque cum aminiculo eidem principi assidue incepito jam opus desudantibus, fatali casu ab hac vita eidem princeps subtractus, percepturus dignum operis sui fructum migravit ad Christum. Cujus omnipotens suis non reddat debita culpis; sed per interventum predicti archangeli eluat probra omnipotens Pater, et vite crimina tollat. Successerunt igitur huic sui duo clarissimi fratres; qui prompti amore pio, ceptum jam opus, prout potuere, adjuvare satagerunt. Abbas quoque, monachique, cum aucsilio supra dictorum principum in hujusce opera assidue laborantibus, cum opitulatione Dei omnipotentis perducunt ceptum opus ad diem completionis. Solerti igitur cura hoc egerunt predicti principes vel abba divino spirati flamine, et juxta septem dona Spiritus Sancti, septem in hoc templo erexerunt altaria, septemque episcopos congregaverunt, qui prelibatum templum vel altaria annuente Deo venerabiliter dedicarunt. Nam hec sunt nomina horum epicoporum: Suniarius, utpote sanctæ sedis Elenensis ecclesie venerandus, in cujus diocese prelibata ecclesia constructa esse videtur; Miro, sancta sedis Ierundensis ecclesie perhumilis episcopus, ad cujus dictionem una cum fratri suo domni Olibani comitis ipse pertinent locus; Fruia, sancta sedis Ausonensis ecclesie egregius pontifex; Wisadus, sancte sedis Urgellensis ecclesie eximius antistes; Isolus, sancte sedis Tolosanensis ecclesie reverentissimus presul; Bernardus, sancte sedis Choseranensis ecclesie egregius opilio; Franco, sancte sedis Carcassensis ecclesie eximius pastor. Hii septem episcopi, Dei altitonantis Misericordia annuente, sub principe domni Olibani sueque conjugui domne Ermengarde, prefatum templum vel altaria dicarent, statuentes etiam sub anatematis vincula ut nullus ex rebus hujus cenobii aliquid abstrære atentet. Quia itaque omnis ecclesiastice rei quantitas sicut remedium venie tribuit conferenti, ita dammum rite præparat fraudatori, devotio etenim uniuscujusque sicut gratanter votum contulit Deo, ita difinivit quod plenitude votorum conservaretur in loco, in quo videlicet si consolata tenetur, manet gratia offerentis, ita si frustratur, iminet pernicies defraudantis, ideo notum fieri volumus omnibus fidelibus sanctæ Dei Ecclesiæ quia quod ecclesie conferentur, Christo donantur, et quicquid ecclesie substahuntur, Christo tolluntur. Cum igitur omnia quæ Dei ecclesiis conferentur, ejus sint, qua insania agitur ut de manu Dei quis auferat quod nonnullis opositionibus se tenere contendat. Ne igitur inaudita presumptio, hos est, invasione templi fiat, omnes nos septem episcopi sub anathematis vincula id fieri proibemus. Quod si quis nostra monita temerare presumpserit, et aliquid ex rebus hujus cenobii juste ibidem conlatis subtrahere temptaverit,

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et male distracta confusione restituat, et nisi se correxerit, et a satisfactionem eidem ecclesie humiliter venerit, a liminibus sancte Dei ecclesie arceatur, et insuper sacrelegii ultione feriatur, et secundum leges mundanas ut sacrilegus componere cogatur, et cum Juda nefandissimo traditore, qui ea que Domino mittebatur asportabat, flammis atrocibus infernalibusque tradatur, Datan et Abiron condemmentibus legis divine juditium sentiat, et nisi se correxerit, ad instar istorum transgressorum cruciandus perenniter in infernum vivus descendat; ubi vermes non moriuntur, et ignis non extinguitur et ubi de calore nimium transibunt ad aquas nivium, et ubi fetorem intolerabilem et indicibilia tormenta transgressores sustinent, et super penas quas assidue sancta Dei Ecclesia in psalmo transgressoribus canit eis eminearum involvantur etiam in penis ut rota, et transeant sicut stipula ante faciem venti; sicut ignis qui comburit silvam, et sicut flama comburit montes, ita persequatur illos omnipotens Deus in tempestate sua, et in ira sua exturbet eos. Impleat facies eorum ignominia, et querant nomen omnipotentis Dei. Erubescant et conturbentur in seculum seculi, et confundantur, et pereant. Et cognoscant quia nomen illi Dominus, et ipse Deus omnipotens ulciscens sancti Ecclesie in secula seculorum. Omnes igitur maledictiones veteris ac novi Testamenti illis transgressoribus superveniant; et nisi se correxerint, penas et in hac vita et in futuro superluant. Et ut hæc scriptura vel excommunicatio firmiorem obtineat roborem, nos supradicti septem episcopi manibus nostris subter firmamus, clericis et ceteris ordinibus sancta Dei Ecclesie roborare optamus subscriptionibus et signis.

Acta est igitur hec scriptura vel dedication retro kalendarum mensis octobris, elapsis Dominice trabeationis annis bis novenis jubileis lustrique trizenis, indictione terna anno bis deno Leutario, francorum rege presidente regno.

+ Suniaris, episcopus Elenensis. + Miro, episcopus Gerundensis. + Fruga, episcopus Ausonensis. + Guisadus, episcopus Urgellensis. + Ysolus, episcopus Tolosanensis. + Bernardus, episcopus Coseranensis. + Francus, episcopus.

K *Marca* [col.879] dated 962.

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Testament of countess Ava

In nomine Domini Dei æterni & salvatoris nostril Iesu Christi. Ego Ava gratia Dei Comitissa. Manifestum est enim quia sacra scriptura ait quòd eleemosyma à morte liberat animam, & quicunque vult evadere æturnum supplicium, debet sibi de rebus istis transitoriis parate viam salutis æternæ. Ob hoc igitur ego jamdicta Ava iis & aliis præcep is divinis instructa, propter

remedium animæ miæ & absolutionem peccaminum meorum, & pro anima senioris mei domni Mironis Comitis, dono vel concedo ad domum sancti Michaëlis vel sancti Germani confessoris Christi cœnobio Coxano & Abbati Gontfredo & monachis præsentibus & futuris ibidem Deo servientibus alodem meum quem habeo in valle Confluente. Sollempniter ergo in eadem valle sic dono ipsam vallem quam vocant Balagariam cum villis & villarunculis suis & omnibus adjacentiis suis atque terminis. Et advenit mihi ipsum alode per decimum senioris mei domni Mironi Comitis, sive pro hominibus qui homicidium fecerunt de meos homines, sive per compatatione, seu per qualicunque voce. Et est ipse alodis casas, casilibus, curtis, curtalibus, hortis, hortalibus, arboribus pomiferis vel impomiferis, vineas, terras cultas vel incultas, pratis, pascuis, pascuariis, silvis, garricis, molendinis, molendinariis cum suis capudaquis, aquis aquarumve ductibus vel reductibus, cum omnibus exiis vel regressiis eorum, omnia in omnibus quicquid in eadem valle habeo vel per qualicunque voce habere debeo. Et affrontat prædicta alode de parte aquilonis in ker Angle vel in alode quod vocant Lar, qui fuit de sancto Andrea de Exalada, & modò est de prædicto cœnobio. Et per ipsa strada subteriore vadit ad ker Monos; & inde ascendit usque in Pujo alto, & sic descendit per ipsa Abela usque in Cassanola. Inde vadit ad kero Ononino, & sic pervenit per ipsas Rebedes usque in guardia de Feges, & sic descendit usque ad Pontem subteriorem de Tete. Et de parte circii affrontat in ipso Agreval vel in ipsa serra de Brulanes, & sic vadit per summitatem montis usque in Sedeles sive in monte Morentio vel in casula de Kermalo. De parte Spaniæ affrontat in serra de Bruguno vel in Pujo Arnoso. De parte altani vadit per ipsa serra qui est ultra Karançano, usque in Iulinano, & sic descendit usque in ipso villare quod vocant Exalada. Quantum istæ affrontationes includunt, sic dono ego jamdicta Ava ad prædictum cænobium prædictum alode propter Deum & remedium animæ meæ hac senioris mei Mironis Comitis, ut cùm anima mea ab hac luce discesserit, obvietur mihi obviatorem omnium animarum archangelum Michaëlem, & intercedat ad Dominum per omnes temeritatis meæ offensas; ut quicquid in hoc seculo mundanæ conversationis peccata admisi, misericors Deus indulgentiam mihi largiri dignetur. Et ut prædictus Abbas & omnes successores ejus ac monachi præsentes & futuri habeant potestatem possidendi, usuandi, exfructuandi in servitio domni & beati Michaëlis archangeli & sancti German confessoris Christi, & non fit eis licirum dare, commutare, aut alienare. Si quis sanè, quod fieri minimè credo esse venturum, qui contra ista carta donationis venerit ad inrumpendum, aut ego venero, non hoc valeat aut valeam vindicare, sed componat aut componam omnia cum sua inmelioratione in duplo, &

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insuper iram Dei & beati Michaëlis sanctique Germani confessoris Christi incurrat, perpetuaque fit pœna damnatus, & à confortio Christianorum fit extraneus, & cum Iuda Scarioth fit damnatus, & cum Datan & Abiron ab omnibus fidelibus Dei fit segregatus, & inantea ista carta firma permaneat & stabilis omnique tempore, & non fit disrupta. Facta scriptura donationis tertio Kalendas Ianuarii anno octavo regnante Leuthario Rege filio Leudevici Regis. Ava, qui ista carta donationis jussi fieri, & testes rogavi firmare. S. Hunofredi. S. Mirone. S. Bellus. Isarnus Vicecomes. Vvanalgaude Vicecomes. Ennego. Daniel Presbyter, qui hanc donationem rogitus scripsi & subscripsi die & anno quò supra.

L *Marca* [col.934] dated 985.

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Confirmation of Papal protection for Cuxa

Iohannes Episcopus servus servorum Dei dilecto nobis in Christo filio Garino abbati sacri monasterii sancti Michaëlis archangeli & beati Germani, quod situm est in valle Confluenti & in loco qui Coxiano, ac successoribus tuis regularibus Abbatibus ejusdem monasterii in perpetuum. Cùm magna nobis sollicitudinis cura instet ad vigilandum pro universis Ecclesiis Dei, ne aliqua earum necessitatis jacturam in posterum patiatur, dignum duximus pietatis intuitu loca ad omnipotentis Dei honorem bene ordinata apostolici privilegii auctoritate muniri, & cum omnibus quæ ad se pertinent rebus confirmari. Igitur quia interventu Olibæ laudabilis & magnifici Comitis postulasti à nobis quatinus reconfirmaremus tibi tuisque successoribus regularibus Abbatibus prædictum monasterium quod suus frater bonæ memoriæ Comes Seniofredus pro amore cælestis patriæ renovavit, dotavit, & auxit, aggregatis monachis ad laudem & servitium cælestis Regis & honorem prædictorum sanctorum, videlicet archangeli Michaëlis & Germani confessoris, inclinati tuis ejusque precibus id ipsum venerabile monasterium super ripam Litterani fluminis constitutum cum omnibus finibus & terminis suis omnibusque rebus mobilibus & immobilibus generaliter & in integrum sibi pertinentibus ad usum & stipendium regularium fratrum ibidem & in posterum Deo servientium reconfirmamus, corroboramus, & præsenti protectione sub continua immunitate stabilimus sicut à decessoribus nostris sanctis Pontificibus atque Christianissimis Francorum Regibus videtur confirmatum corroboratum. In primis villam Cotoleri, & villam Tauriniani, cum Ecclesia sancti Fructuosi & omnibus rebus sibi pertinentibus. Item villam quæ dicitur Cortis & omnia posita inter hos affines in circuitu monasterii, id est, ab orientali parte finis per summitatem serræ qua pergitur ad jugum de Clerano, & itur ad montem qui dicitur

Lacarias, & sic ducitur per ipsum usque in montem qui dicitur Canigonis, & deinde ad meridiem descenditur per serram super locum qui dicitur Miliarias, & pervenitur ad crucem super villam quæ dicitur Cortis. Deinde tenditur usque ad rupem sive cherum Clarinti, & venitur per summitatem de serra usque in rivum Merdarium, & ducitur usque in flumen Tede. Et à parte circi, hoc est, ab occidentali fronti, venitur in stratam publicam quæ dicunt duas sorores, & venitur usque in Litteranum per ipsam viam publicam. Deinde à parte aquilonali sub sancto Felice tenditur & pervenitur usque in alodem sanctæ Mariæ. Item alibi Ecclesiam sancti Martini cum villa de Cleirano cum finibus & ajacentiis suis. Item villam Castellani cum duabus Ecclesiis ibi fundatis, hoc est sancti Andreæ & beatæ Mariæ semper virginis, cum alode suo, & cum decimis & primitiis suis, & cum omni ornatu earum. Ipsa villa posita est intra fines sive adfrontationes, id est, ex una parte in terminum de Molegio vel in ipsa Petrafixa, & ex alia parte in ipsa archa de Casalono, & vadit per comam qua pergitur ad flumen Tede. Et ultra ipsum flumen quantum tenebat Seniofredus Comes in die obitus sui. Et villam Torrentis cum finibus & terminis sive ajacentiis suis, sicut per scripturam idem monasterium habere videtur. Villam Taresagii ex integro, & alodem de Molegio quantum ipsi monasterio pertinet. Item quantum pertinet de alode de Moseto, & quantum ei pertinet de alode de Arbuzolos, & Planicolos, & Inter Rivos. Et in villa Moseto, & in villa Felgaria, per fines & terminos suos. Item in villa Sauriniano Ecclesiam sancti Michælis cum omnibus rebus ad se pertinentibus. In comitatu namque Feniliotensi confirmamus omnes res ipsi monasterio pertinentes. In valle Confluenti omnes res sibi pertinentes cum finibus & terminis suis. Item in comitatu Cerdaniensi villa Oruz cum villis & villarunculis suis & cum omnibus adjacentiis earum, & alodem de Anglos cum ipso mercato & cum finibus & terminis suis. Villa Lagunam cum Ecclesia sancti Vincentii & cum finibus & terminis suis. Vallem Balagarii cum Ecclesia sancti Thomæ & cum villis & villarunculis suis, & cum omnibus terminis suis. Et villam Larem, Mazunculas, & Talaz, & Ozemas cum Ecclesia sancti Stephani & Saltonem cum Ecclesia sancti Mauritii, & parrochiam sancti Petri de Inforcato, & Ecclesiam Salvatoris de Sponna cum decimis & premitiis suis, & villam Vulcaria cum finibus suis, Aragolizam cum alode, & Ecclesiam sancti Iacobi, Bulvir cum Ecclesia sanctæ Cæciliæ & cum ipso poio, parrochiam sancti Thomæ quæ est in Ventegola cum decimis & premitiis suis. Item omnes res ipsi monasterio pertinentes in comitatu Cerdaniensi cum finibus suis. Et in comitatu Bergedano alodem de Spogiola & Montenigro & omnes alodes ipsi monasterio pertinentes. Et in valle Confluente villam Folianum, Secundianum, Cornelianum, Vernetum, Cirafagum, Arrianum, Anger, Henne.

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Et in villa Evulo Iujuls, Campilias, Flazanum, Saorra, Foliolum, Torrendum, & Pinum, Porcinianum, & Ascaronem, & omnes alias res ejusdem vestri monasterii positas in valle Confluente. Et in comitatu Fenoliotensi Ecclesiam sanctæ crucis cum castello & omnibus rebus ad se pertinentibus. In comitatu Rossillionensi alaudem de Petra calcis, sancti Felicis, Miliarum, Insula, Tuvarium, Vallem ventuosam, Corbariam, Nifragum, Poium Buscanum. Et in termino de valle Asperi & valle Confluenti ipsum alodem de Vallemagna cum fines & terminos suos. In comitatu Bisuldunensi alodem de Centenno cum finibus & terminis suis, vel in aliis locis posita. Item in comitatu Ausonensi alodem de Saliforas, & alium alodem qui fuit Oddonis. Hæc igitur omnia quæ istis sive aliis vocabulis nuncupantur, & omnes res in quocunque loco positas quæ dici vel nominari possunt, & quæ nunc usque eidem monasterio pertinent, & inantea per aliquod conquisitum usque in finem seculi per litteras sive fine litteris pertinere debent, tibi prædicto filio nostro Garino Abbati successoribusque tuis omnimodo concedimus & per hanc nostrum protectionem perenniter confirmamus, cum terries, vineis, campis, pratis, pascuis, silvis, Ecclesiis, villis, casis, ædificiis, cultis & incultis, aquis & aquimolis, decimis, premitiis, & universis usibus & reditibus, cum servis & ancillis, aldionibus & aldeabus, & cum omnibus quæ dici & nominari possunt. Statuentes Dei & nostra auctoritate, immo & protestantes, ut nullus Rex, nullus Episcopus, nullus Dux, nullus Comes, Vicecomes, nullaque hominum magna vel parva persona audeat tibi & successoribus tuis violentiam aut contrarietatem aliquam facere de universis rebus quæ suprà leguntur pertinentibus ipsi monasterio beati Michælis & sancti Germani, neque alicui eorum liceat homines vestros liberos aut servos sine voluntate vestra molestare sive in servitium trahere, sed amodo & usque in finem seculi isdem vester locus cum omnibus quæ sibi nunc pertinent & inantea pertinere debent quietè & pacific maneat sub ditione sanctæ Romanæ matris Ecclesiæ, cujus juris est, ad regularem & monasticam tranquillitatem, omnium hominum penitùs & ubique contradictione remota. Si quis autem, quod non credimus, huic nostro apostolico privilegio in aliquot contrarius esse præsumpserit, nisi ex toto resipuerit, sciat se maledictum, reprobatum, atque anathematizatum, & à societate fidelium Christi & sanctæ Dei Ecclesiæ separatum, & cum omnibus impiis sine fine damnandum, & perpetuo incendio cum Iuda traditore concremandum, & ex auctoritate Dei omnipotentis & beati Petri Apostolorum principis nostroque apostolico judicio. Qui verò hæc quæ à nobis decretal sunt custodire & diligenter observare studuerit benedictionis gratiam à misericordissimo Domino per nostram & omnium sanctorum interventionem consequi mercatur & gaudia perpetuæ beatitudinis

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angelicis junctus agminibus valeat feliciter obtinere. Scriptum per manum Stephani Notarii regionarii & scriniarii sanctæ sedis apostolicæ in mense Decembrio, Indictione XIV. Benevalete.

M Marca [col.961] dated 1006 Donation by Guifred & Guisla to Saint-Martin du Canigou.

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In nomine Domini. Ego Guifredus gratia Dei Comes & uxor mea nomine Vvisla Comitissa donatores sumus tibi sancto Martino qui est situs vel fundatus in monte Canigone. Certum quidem & manifestum est enim quia sic placuit in animis nostris & placet nullius cogentis imperio nec suadentis ingenio, sed propria & spontanea hoc elegit nostra bona voluntas, ut tibi cartam fessicemus de alodibus nostris propriis qui ad me pervenerunt Guifredo jam prælibato per successionem parentum meorum & ad me Vvisla per te viro meo Vvifredo. Et sunt ipsa alodia in suburbia Helenense, in valle Confluente, infra fines de villa Verneto vel in ejus terminos, in locum quem nuncupant Algadedo. Et afrontat ipse alodes de una parte in serra Circulusa vel in era de Guistrille condam de alia in ipsa serra, de tertia in terra Castellani vel in ipso Pinatello, de quarto vero latus in ipso regato qui discurrit per Algadedo. Quantum intra istas quatuor affrontationes includitur, sic donamus ad domum sancti Martini ipsum alodem jam suprascriptum; exceptas ipsas terras de ipsos homines de Verneto unde auctoritatum habeant. Sic donamus ipsum alodem suprascriptum ad domum sancti Martini propter remedium animarum nostratum, ut ante Deum possimus invenire remedium, & est manifestum. Ista vero alodea quæ superiùs resonant de nostro jure in tuo trademus dominio & potestate faciendi omnia quæcunque volueris. Si quis contra hanc cartem donationis venerit ad inrumpendum, aut ullus homo inquietare voluerit, aut de filiis aut de propinquis, aut ulla potestas secularis, in primis iram Dei omnipotentis incurrat, & à liminibus sanctæ Dei Ecclesiæ extraneus fiat, & cum Datan & Abiron locum proprium habeat, & in antea ista carta donationis firma & stabilis permaneat omni tempore, & non sit disrupta. Facta carta donationis ii Idus Iunii anno viiii. regnante Rodberto Rege. Guifredus gratia Dei Comes, Guisla, nos qui istam cartam donationis rogavimus scriber & testes firmare. S Guillelmo. S Oliba. S item Olibane quem dicunt Galindone. S Maronta quem vocant Belloto. S Tedemiro. S Ferruz. S Donnuz. S Seniofredo. Miro. S Ermengodo. Gisclamirus Presbyter, qui istam cartam donationis scripsi sub die & anno quod suprà.

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In nomine Domini. Ego Guifredus gratia Dei Comes & uxor mea Guisla Comitissa. Magnum nobis & satis licitum esse videtur domum Dei ædificare eamque de nostris rebus honorare atque ditare. Audientes cotidie prædicationes sanctorum patrum, quia eleemosyna à morte liberat animam, propterea manifestari volumus quia placuit animis nostris & placet nullius cogentis imperio nec suadentis ingenio, sed propria & spontanea hoc nostra elegit bona voluntas ut cartam donationis faciamus, sicuti & facimus, ad domum sancti Martini quæ est in latere Canigonis sita, de propriis alodibus nostris, id est, in valle Confluente, in villa vocitata Verneto, cum casis, casalibus, hortis, hortalibus, curtis, curtalibus, areis, terris & vineis, cultibus vel eremis, molinis, molendinariis, cum suis instrumentis, silvis, pratis, pascuis, aquis aquarumve ductibus & reductibus, garricis, cum arboribus pomiferis vel impomiferis atque glandiferis, alodem & fevum, omnem nostram vocem quam ibi habemus vel habere debemus per directum, qui mihi Guifredo advenit per parentum, & mihi Guisla per meum decimum. De orientis enim parte affrontant vel terminantur termini de ipsa villa jamdicta cum hoc quod nos ei adhibemus in loco qui vocatur Astationes, & ascendit per ipsam serram quæ est inter Vernetum & Foliolos, & pervenit ad collum Iuvelli, & ascendit per summitatem serræ usque dum perveniatur ad ipsam arcam de Soreniano. Et sic terminatur per summitatem serræ quæ vadit super Aguadedum usque dum ascendatur in Canigonem. Et de meridie adicimus ei terminum in ipsa gleva, & vadit per ipsam serram quæ vadit per Bacieros; & sic perveniter ad pausam Guillelmi. Et de occiduo terminatur in ipsa arca usque dum pervenitur ad pratum Rossilionensem; & descendit per ipsam viam usque dum perveniatur ad cherolo quod est in prato de Palanicis. Et sic descendit per ipsam serram usque ad collum de love, & pervenit per summitatem serræ usque dum perveniatur in Tauro pelato, & usque dum perveniatur per ipsam serram usque in via quæ pergit de Corneliano ad Cercedo. De parte verò circi descendit usque in prato, & ascendit per ipsam limitem usque dum perveniatur ad ipsam arcam. Et sic vadit per ipsas arcas usque dum perveniatur ad jamdictas Astationes. Subtrahimus enim ex termino antiquo jamdictæ villæ ipsum pratum sicut est extra suprascriptos. Quantum verò infra terminates limites habemus vel habere debemus quo qualemcunque voce trademus omnia ab integrum ad domum sancti Martini jamdicti. Et in comitatu Rossilionense, in villa quam vocant Miliarios vel in ejus terminos, alodem nostrum qui nobis advenit per

donationem Stephani de Marcugano cum terminibus & affrontationibus suis sive per qualemcunque vocem. Et in ipso eodem comitatu, in villa quam vocant Lupiano vel in ejus terminis, alodem nostrum qui nobis advenit per donationem Guifredi Presbyteri cum terminibus & affrontationibus suis excepto ipso prato, donamus atque tradimus ad domum sancti Martini jamdicti ab integrum cum exitibus & regressibus earum, ut idem locus ad honorem Domini nostri Iesu Christi ædificetur & militantes regularitur ibi adgregentur sub beati patris Benedicti norma, & ibi juxta voluntatem ac privilegium Romani Pontificis & Præsulis sedis Helenensis ac institutionem Francigeni Regis in futurum Deo omnipotenti serviatur. Si verò, quod absit, aliquis homo hanc donationem infringere tentaverit, secundùm sanctorum partum traditionem sanctæque regulæ canonum à liminibus sanctæ Dei Ecclesiæ se noverit alienandum, & quia contra sanctam matrem Ecclesiam viperino furore surrexit, anathema maranatha feriendum; & insuper nhil ejus objectio valeat, sed pro vinculo legis temporaliter triginta libras argenti eidem Ecclesiæ persolvat, & hæc donatio perpetim inconvulsa permaneat. Facta donatione anno trabeationis Christi millesimo septimo, Indictione iv. ii. Idus Iulii, luna xxvi. anno xi. regnante Rodberto Rege. Guifredus gratia Dei Comes, Vviscla Comitissa, qui hanc donationem fecimus & testibus firmare rogavimus. Bonus homo, Guitardus. Rodbadus monachus & sacerdos, qui hanc cartam donationis scripsit & subscripsit die & anno præfixo.

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O Orteig i Mata [VII [1] 11] dated 1009 Consecration of Saint-Martin du Canigou.

In nomine Domini Dei eterni. Sub anno Incarnationis Domini nostri Jesu Christi M° VIIII°, era millesima XLVIII, indictione VIIII, IIII idus novembris, veni ego Oliba sancte sedis Elenensis episcopus in suburbio supradicte Elene, in valle Confluente, in locum quem vocant Kanigone, ad consecrandam ecclesiam illo in loco sitam in honore sancti Martini episcopi et confessoris sancteque Marie Virginis et sancti archangeli Mikaelis vocatumque cenobium Kanigonis in monte structum, quod extruxit quidam presbiter nomine Sclua vel monachus precipiente, ordinante et in omnibus perficiente atque ad plenum effectum perducente dompno Guifredo gratia Dei comite ejusque conjuge nomine Guisla, qui ditaverunt predictam ecclesiam vasis sacris, scilicet calice argenteo cum patena et turibulo argenteo, et miserunt sacerdotale indumentum et kapas duas palleas et cetera pro viribus necessaria, necnon et villa quam vocant Verneto cum terminibus et afrontacionibus suis, quantum ibidem abebant, et in villa

Saorra ipsum mansum qui fuit de Bertelego, et in villa Miliars quantum ibidem abebant, et in villa vocitata Lupiano similiter, et ipsum mansum qui est in Eveg qui fuit de Guido similiter. Bernardus et Sancia vinea I in Foliano, Bonushomo et Guarinus et Guila vineas II et pecia I de terra, Ato vinea I in Isla, Miro alia vinea in Gululos, Langoardus vinea I in Rigasdano, Seniofredus et Odo fratres vinea I in Taresago, Bernardus vinea I in campo Morgado, Rodballus vineas II in Forchas, Stephanus presbiter vineas II in Vinciano, Guitardus vinea I in Penedes, Miro vinea I in Molig, Landricus et Semperbona et Seniofredus filius ejus vinea I in Foliano, Ellofredus et Ranlo vinea I in Vereneto. Ego autem predictus Oliba episcopus concedo, annuo et sacerdotabiliter firmo predicta omnia domui Sancti Martini die consecracionis ejus, ea lege ut monachi ibidem Deo servientes et regulariter viventes ecclesiastico more perpetim abeant sub regimine sancte matris ecclesie Eulalie et meo meorumque successorum. dandis predicte ecclesie aliquid fraudare, subripere vel auferre voluerit, non solum excomunicatus vel maledictus seu etiam anathematizatus a regno Dei perpetim seclusus sit, nisi intervenerit penitendo lacrime rivulus, hic vero dotis libellus sancte ecclesie Elenensi subnixus omni tempore sit firmus.

Acta est autem consecracio predicte ecclesie vigilia sancti Martini.

S + Oliba gratia Dei sedis Elenensis episcopi. SSS. Udalgarius archipresbiter +. Sig+num Bernardus Gischafredus archilevita. + Oliba licet indignus abba. + Wifredus gratia Dei comes +. Guisla comitissa +. + Signum fratris.

Dela presbiter, qui ista dote scripsi et + die et anno prefixo.

P *Marca* [col.1022] dated 1020

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Testament of countess Guisla.

In Dei nomine. Ego Guifredus Comes & Oliba de Foliano & Vvaltarius de Rippis & Olibal capellanus, qui sumus manumissores vel eleemosynarii Guislæ Comitissæ, quæ præcepit nobis ut cartam donationis facerimus domui sancti Martini Canigonensis cænobii de alodibus quos habemus in valle Confluente in villa Aureliano & Celrano & Guissano, quæ ei advenerant per donationem suprascripti memetipsi Guifredi Comitis, quos ego ci non per cartam dedi, sed tantummodo simpla donatione tradidi; de quibus omnibus nos suprascripti manumissores secundum testamentum ejus judicium obligatum & confirmatum habemus infra metam temporum. Et habent affrontationes prædicti alodes de parte orientis in rivo Evolense, & de meridie in ipsa Erola, & de occiduo in coma vinea, & de circi in cacumine montis

Cleriam. Quantum præscriptæ affrontationes includunt de alodibus villarum Aureliani & Celrani & Guissani, quæ mihi advenerunt de parentum, ego prædictus Guifredus Comes omnem meam vocem & alodariam & fevalem & pascuariam & paratalem, quam in præscriptis alodibus habeo vel habere debeo per quamcunque vocem vel directum, dono prædictæ domui sancti Martini simul cum præscriptis manumissoribus propter remedium animæ uxoris meæ Guislæ Comitissæ ac meæ, ut Abbas & monachi præsentes & futuri ira obtineant vel utantur sicut cetera sancti Martini munificentia. Sunt enim in præscriptis alodibus domus, curtes, hortea, areæ, torcularia, terræ, vineæ, cultum & eremum, silvæ, pascua, pomiferæ & impomiferæ arbores, prate, aquæ, & aquales ductus & reductus; in quibus omnibus prædictam meam vocem cedo sancto Martino ab integro. Et qui istam cartam eleemosynariam inquietare voluerit, non hoc valeat vindicare quod requirit, sed componat in quadruplum sancto Martino perpetim habiterum com omnibus suarum meliorationibus, & in antea ista scriptura firma stabilisque permaneat omni tempore & non fit disrupta. Facta carta donationis XII. Kalendas Iulii anno XXIII. Regnante Rodberto Rege. Vvifredus gratia Dei Comes, Oliba de Foliano, Gualtarius de Rippis, Oliba capellanus, qui hanc cartam eleemosynariam scriber fecumus & testes firmare rogavimus. S. Ansalone. S. Borrel. S. Oliba. Oliba monachus vel Levita, qui istam cartam eleemosynariam rogatus scripsit & subscripsit die annoque præfixo.

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Q Ordeig i Mata [VII [1] 37-39] dated 1022 Consecration of Saint-Paul de Py.

Anno dominice Incarnationis XXII super millesimum, era millesima LX, indictione IIII, pridie idus octobris, venit Wifredus nutu divino archiepiscopus Narbonensis, filius Wifredi comitis, et Oliva, pontifex Ausonensis, frater prefati comitis, et Idalcherus, archidiaconus Elenensis, simul cum jamdicto comite et innumeris fidelium clericorum et laicorum turmis, ad dedicacionem ecclesie Sancti Pauli apostoli et confessoris Pauli in valle Confluente site, in villa Pino, consentiente sibi Berengario, Elenensi episcopo, tunc temporis peregre profecto. Igitur nos prefati episcopi confirmamus predicte ecclesie suam parrochiam: ab oriente terminatam in terminibus Verneti, a meridie in fonte de Tec, ab occidente in collo de Mented, a parte vero circi venit in Grunno et descendit per Scalam usque ad crucem. Infra prescriptos terminos confirmamus ei decimas et primitias et fidelium oblationes et cuncta que divino cultui pertinent, eo tenore ut canonica et apostolica auctoritate subdita sit sue matri sancte Elenensi

ecclesie. Si quis autem, quod non optamus, hujus nostri decreti presumptuosus temerator extiterit, tamdui noverit se separatum ab omni cetu fidelium christianorum, donec recipiscat, et ad plenam satisfaccionem veniat. Pro temporali tamen vinculo quicquid ablatum fuerit reddatur in quadruplum.

Donata vero a nobis est prefata ecclesia hujus dotis titulo anno XXVI regni regis Roberti.

Guifredus, sancte prime Narbonensis ecclesiae episcopus, SSS +.

Oliba episcopus, quod justum est, confirmo + SSS. Udalgerius archidiaconus +.

Salomon, sacer et judex, scripsit et SSS die et anno prefix.

20 (Another version exists with Guifred amongst the signatories)

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R Orteig i Mata [VII [1] 54] dated 1031 Consecration of Sainte-Eulalie de Fuilla.

In nomine Dei eterni. Sub Incarnationis Domini nostri Jesu Christi anno tricesimo primo post millesimo, indictione decima, veniens uti reverendissimus dompnus Berengarius, sanctae sedis Elnensis episcopus, in comitatu Rossilionis, in suburbio Elnense, in valle Confluenti, in villa quae dicitur Foliano, ad consecrandum ecclesiam in honore santae Eulaniae, virginis et martiris Christi, quam edifficaverunt omnes homines, id est, Bernardus et Oliba et Berenger et Pontius et Pere et Riufret et Bernardus et Arnallus et Esmeinur et Oliba et alii plures homines qui ibidem adherant. Donamus predicti homines ad predicta ecclesia Sancta Eulalia ad sementerium erigendum dictae ecclesiae triginta passus. Et ego dictus Bernardus et uxor mea Santia donamus pecia, id est, de vinea ipso in [...] cum suas affrontaciones. Et ego Pontius et uxor mea similiter donamus pecia, id est, de vinea que est a Quer Agudell, cum suas affrontaciones, et horto uno prope dicta ecclesia et affrontat: de una parte de me donatore et de alia parte in horto Aulione et tertia parte et de quarta in estrata que vadit ad Sancta Eulalia. Et una ad Madoncles petia terrae et affrontat: de duas partes in vias que assendunt in montem de Badananno et de tertia et de quarta in ipso. Ista omnia donamus ad domum Sanctae Eulaliae, virginis, nos supradicti, id est, sacerdotibus ibidem Domino servientibus, quam ecclesiam tradimus patri nostro Berengario, episcopo. Ipsam ecclesiam dominus vero Berengarius, episcopus, constituit ibi affrontaciones in parrochia ipsius villae, que habet ipsa parrochia affrontationes: in termino de Corneliano, in loco vel in cumba ubi appellamus Gallicantu, et assendit per mediam serram usque ad terminum de Verneto sive in collo de Tocopelato, et assendit usque ad flumen de Saorrico, et assendit per medium torrentem de

Valle Luparia usque ad flumen de Tetum, et assendit per medium torrentem de Tarriga usque ad Rocham Altam, et dessendit per mediam serram de Campelles, et assendit usque ad solum de Conamarino vel in Petra Forallo, ut sicut ipsa villa jamdicta Foliano ibi occurrit, ibi donavit. Censuimus ita censum de ipsa ecclesia Sancta Eulalia per singulos annos ad sinodum estivale partitas tres et altres duodecim de sarzil parad, et ad aliam sinodum que est in retro tempore similiter partitas tres et duodecim altras de sarzil parad, et per unumquemque annum modios tres de annona et tres de vino per ipsos tercios. Hoc est quod inter nos diffiniimus ut non comes nec vicecomes nec ulla secularis potestas aut uluscumque homo de hoc aliquid abstrahere vel inferrigere voluerit, in primis iram Dei omnipotentis incurrat et a criminibus sanctae Dei Ecclesiae extraneus fiat, et cum Datan et Abiron judicium se sentiat esse daturus et cum Juda, traditore Domini nostri Jesu Christi, participationem habeat, et in antea ista omnia habendus est ecclesiam non sit abstracta.

Facta ista donatione undecimo chalendas januarii, anno decimo rege expectante.

- + Benet Oliba. + Berenguer. + Pontius. + Seufred, et Pere, et Arnallus, et Bernat, et Menut, et Oliba, qui ista dote scribere fecimus et firmavimus et firmare rogavimus. + Langart. + Ense.
- + Pons, hoc homo layous, qui ista dote scripsit et + sub die et anno quo supra.

Berengarius, Elnensis episcopus. + Petrus Sat.

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S Marca [col.1060] dated 1035. Donation of Guifred to Saint-Martin du Canigou.

In nomine Domini. Ego Vvuifredus gratia Dei Comes. Manifestum est enim quia placet animis meis domum sancti Canigonensis Martini honorare atque ditare de aliquot munere allodium meorum quem habeo in comitatu Ceritaniæ. Dono namque ibi ego jamdictus Vvifredus in villam Odelonis vel infra ejus fines & terminos quantum ibi habeo vel habere debeo per allodium sive per fevum atque dominium, scilicet domos, cortes, cortales, hortos, hortales, areas & palumbarios, terras cultas & eremas, garrigas & rupes, petras & fonts, aquas & aquales, ductus & reductus aquarum & viarum, molendina & molendinaria cum caputaquis & instrumentis suis, & cum exiis & regressiis suis. Et in villa Opaci similiter, & in Solano similiter, & in villa Egati similiter, & in villa Targasona similiter, & in Torba similiter, & in Plano similiter, & in valle Luparia similiter, & in tres malos similiter. Dono insuper ipsam Calmam cum silvis suis, quæ habet terminos in locum quem dicunt Paradela, & vadit in serra Vsclada, & inde pervenit ad collum de Mata gallinaria, & descendit ad Petrasita, & pervenit ad Matam

rotundam. Eandem autem calmam & silvas dono prædictæ domui eo tenore ut si quid ibi cultum atque laboratum fuerit, omnia serviant sancto Martino sine cujusquam inquietudine vel blandimento. Extra hos autem terminos confero ego jamdictus Vvifredus hominibus sancti Martini infra terminos prædictarum villarum habitantibus in majori silva incisionem lignorum ad constructionem domorum suarum, & quicquid necessarium habuerint infra prædictas villas sine alicujus blandimento. Et in supradicto comitatu, in valle Petraria, in villa quæ nuncupatur Pardinas, in locum quem dicunt Cucuciago, dono ibi mansum quem Suniarius tenet, cum omnibus quæ ad ipsum mansum pertinent, scilicet domos, cortes, cortales, hortos, hortales, terras & vineas, cultum & eremum, arboribus pomiferis & impomiferis, silvis, pratis, pascuis, garricis, molinis, molendinariis cum suorum caputaquis, cum exiis & regressiis, cum terminis & affrontationibus suis. Et in comitatu Confluente dono ibi alodem meum de Madrechexanes & de Vincitello & de Favarios & de Avallaneto, scilicet casas, casalibus, cortis, cortalibus, hortis, hortalibus, terris & vineis, cultum & eremum, arboribus pomiferis & impomiferis, silvis, pratis, pascuis, garricis, molinis, molendinariis cum suorum caputaquis, cum exiis & regressiis suis. Et habet prædicta villa, cum ipsos villares qui ad ipsam pertinent, id est, Avellaneto, Favarios, & Vincitello, cum ipsos duos mansos qui sunt in Lunad, has affrontationes. Prima subter ipsa villa ultra flumen Tet in coma quam dicunt Paradisum, & ascendit usque in chero Beran, & descendit inde usque in coma de Arbolad, & ascendit usque in serra, & pervenit ad viam veterem, & descendit usque ad ipam scaleram, cum ipsos duos molendinos qui ibidem sunt, cum suorum caputaquis, & cum exiis & regressiis eorum; & pergit per ipsum flumen, & pervenit ad ipsa coma de Lunad, & inde vadit per ipsam comam usque in ipsa parada, & ascendit usque in serra ad ipso chero blanco. Ex hinc vadit usque in alio chero albo. Exinde pergit ad alios cheros blancos, & pervenit ad ipsum puteum. Exinde vadit usque ad ipsam aream quæ est ante Ecclesiam quæ est in Lunad, & pervenit usque in via publica quæ venit de Astover, & vadit per ipsam viam usque in alodem sanctæ Mariæ, & pervenit usque in torrentem de Loscon, & inde ascendit usque in ipso manso de Stephano qui fuit condam, & ascendit usque in serra in ipsa via, & per ipsam viam vadit usque in locum quem dicunt Archa. Ex hinc descendit per alodem sancti Stephani usque in ipsa coma. Hinc ascendit per ipsum alodem de Astover, & pervenit usque in serra de Mora cocta. Inde descendit in ipsa coma quæ decurrit usque in villa Madrechexanes, & inde ascendit per ipsa serra usque in campum quem vocant Branvino qui fuit condam, & descendit inde in torrente usque in valle Lobaria, & per ipsa coma pervenit usque in flumen Tet. Quantum prædictæ

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affrontationes terminant, & quantum ego præfatus Comes infra jamdictas affrontationes piduavi & signare feci, omnia & in omnibus ad integrum dono atque concede prædicto cœnobio quantum infra jamdictos terminos habeo vel habere debeo per qualicunque voce, cum exiis & regressiis suis, cum terminis & affrontationibus, sine ulla reservation. Dono etiam præfato cœnobio Ecclesiam sancti Vincentii de villa Elz cum decimis & primitiis & fidelium oblationibus & cum omni alode ad ipsam Ecclesiam pertinente, cum terminibus & affrontationibus & exiis & regressiis suis. Et ego Elizabeth Comitissa dono in omnibus supradictis alodibus jamdicto cœnobio meam vocem, quæ mihi competit per meum decimum. Abbates enim & monachi præsentes & future in jamdicto cœnobio Domino militantes ita obtineant hæc omnia sicut cetera alodia & munificentia jamdicto loco pertinentia. Si quælibet autem persona hanc cartam donationis quoquo modo disrumpere tentaverit, non valeat vindicare quod requirit, sed pro temporali vincula hæc omnia componat in quadruplum, & tamen hæc scriptura perpetuò maneat firma. Facta scriptura donationis Idibus Iulii anno millesimo trigesimo quinto incarnationis Domini, æra millesima septuagesima tertia, Indictione tertia, anno iv. regnante Rege Henrico. Vvifredus gratia Dei Comes, qui hanc donationem feci & testibus firmare rogavi. Signum Elizabeth Comitissæ, quæ supradicta assentio & firmo. S. Raimundi gratia Dei Comitis filii supradicti Guifredi Comitis. S. Bernardi Vicecomitis Ceritaniæ. S. Bernardi Folianensis. S. Guitardi Mironi. S. Gauzfredi Bernardi. Guillelmus gratia Dei Comes. Galindus monachus & sacerdos, qui istam cartam donationis scripsi & subscripsi die & anno quo suprà

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T Marca [col. 1072] dated 1040. 'Letter' of the monk Garsias [extract].

Gloriosissimo atque inter pios Præsules clementissimo patri Olivæ bonorum monachorum ultimus, sanctitatis autem vestræ servus, gratiæ vel potestati quoad vivam famulas Garsias debitæ servitutis obsequium & æternæ quietis incomparabile præmium. Omnipotens Deus cùm visibilium atque invisibilium substantiarum creaturas conderet & causus vel actus rerum adverteret, suæ vertutis æmulatorem, scilicet cupidum cælestium gratiarum, ad laudem & gloriam suam ante mundi constitutionem delegit hominem, qui mundane operis & animantium universorum necessariò uteret potestarem; cujus gratiæ vel similitudini totius humanæ universitatis vos conferendum dedit cum corporeæ fragilitatis consortium & omnium specierum secundùm amplitudinem vestri cordis inexplebilem atque insatiabilem

tribuit intellectum. Primùm videlicet vernatis ætatis disciplinis præ-exercitaminibus & multa sollicitudine in processu temporis laborare compulit, & sic ad omnem causam ex parentali successione pro justitiæ meritis regendarum rerum piè præfecit, ut jugis exhibitio probabilium actuum conjungeret perception sublimium cogitatuum. dispensatio voluntatis paternæ, spretis honoribus mundi, vos Ecclesiæ suæ iterum donavit rectorem, ut imprudens & nimis imperitus sub manu & beatitudine vestra ubicunque secreti consilii haberet securitatem & lucri majoris summam defensionem. Quod experimento copiosis & securis ipse cognovi, dum dilecti præceptoris vel in toto vestri familiaris Arnalli refugium & memorabile duco furtum, scilicet de instuctione atque exaltatione Christique ac sanctorum ejus pignorum conclusione, vel altaris nostri dedication, necne ignis exustione, vestri verò laboriosi operis restauratione, & iterum gloriosæ vallis benedictione, à destruentibus etiam irruptione, in quibus jussus feci sinceri amoris vestri officium, & domni mei Michaelis sensi adjutorium, propitiatorii quoque coloribus & Evangelistarum figuris si assignavi, non verò concedente Christo in vestra salute fieri spero in melius majora ex omnibus. Interim precor ut hoc quod inculto sermone protuli non vituperes ut æmulus, sed vestrum lucentem ingenium vindices ut benivolus. Nonnulla ergo quæ sunt inter cartulas descripta inveni, & ex ipsis quicquid luculentiùs invenere potui, cùm essent multa quæ penè legi vel perspici non valerent, pauca quæ pugillo atripere potui aut multorum utilitate prona condere studui voluntate ita. Quarto Kalendas Octobris celebritas dedicationis sancti archangeli Michaelis cœnobii Cuxanensis, quam etiam admodum in rerum rebus prudens & ad docendam ex tempore plebem sufficiens in ornatisque studiis perfacilè lucens Vvarinus ejusdem fundi religiosus Abbas divina se ducente manu unà cum ejusdem diocesis Praesule signo & scientia Suniero, adjunctis diversarem sedium Episcopis, septem viri numero & nobilitate ac prudential præstantissimi cum infinita multitudine nobilium potestate ac utruisque sexus diversi ordinis clericorum atque plebium variæ dignitatis eminentissimum cœtum, in gaudiis magnis actionibus gratiarum dedicaverunt, illamque donis duplicibus in commune locupletaverunt, & regiæ dignitati cum muneribus & coronis copiam reddiderunt, & eam in inrefragabili juris perpetuitate esse inconvulsam aut cujuscunque servitii qualibet executione liberam ac in protelatione finium cum fuis opibus stare semper dominam, quadque sanctiores cum ornasse templum ex magna parte venerabilium sanctorum & majores quicunque populorumque potentes munerum largitate adprime ditatum, omnibusque bonis penè sublimatum, utrisque partis sacrosanctum Domino templum

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sacraverunt. Unde etiam ex eadem Ecclesia vel dedicatione suo tempore optabile est recordatio paulatim & memoria amantibus cognosci tota veritate. Et primò quàm gloriosè Deus locum & templum esse sibi effecerit, quàmque redemptoris nostri facilis miserendi clementia votis adsit supplicantium, quoque modo locus ille inter primos totius orbis plenitudine & veneratione fulgeat, paucis verbis circumtollat. Enim verò antiquiora posteris memoriæ tradere laude & testimonio dignum est. Igitur post telo apostolicæ ultionis sacratissimi cænobii sancti Andreæ apostoli & restaurationem quæ eoram positis videtur & legitur sanctissimi præsulis Germani divinæ providentiæ quidem factum clarissimus Pontius, vir eximiæ nobilitatis probabilisque vitæ, conventum dominantis illius cænobii procurabat, hisque sub felicis memoriæ Seniofredi Comitis, qui jam spem suam in fructibus collocaverat bonis, & viribus atque auctoritate.

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U Alart (Cartulaire roussillonnaise) dated 1053. Consecration of Saint-Vincent d'Eus.

In nomine Dei omnipotentis, Patris et Filii et Spiritus Sancti era millesimal XCI, indicione Va, veniens vir reverentissimus Berengarius, Helenensis episcopus, in suburbia Helenensi, in valle Confluentis, in villam quam vocitant Hels, ad consecrandum ecclesiam in honore sancti Vincentii et Sancti Johannis quam edificaverunt omnes homines, id est, Bernardus Amalrichi, Petrus Vincentii et Seniofredus et Guiffredus et alii boni homines qui ibidem aderant. Et habet terminos ipsa ecclesia de prima parte in ipsa Schalera, de alia in ipso pariete qui est super Chavalleram, qui affrontat in alode de Sancta Maria Crassa, de III in villar Chasalons, de IIII in alode de Stanils. Quantum infra istas affrontationes includitur sic donamus ad ipsam ecclesiam de Sanct Vincentio vel Sancto Johanne ipsum decimum cum primiciis et oblationibus suis, et cum ipso suo cimenterio, totum ad integrum cum exiis et regressiis aerum et cum illarum affrontionibus. Sic donamus jam dictos honores videlicet ista omnia superius scripta ad domum Sancti Vincentii que est sita vel fundata in villa quam vocant Hels, ea videlicet lege ut ipsa ecclesia sit subdita matri eclesie Sancte Eulalie et michi succedentibus episcopis; et per singulos annos sacerdotes illic Deo servientes et predictis utentes faciant cohortem matri ecclesie de Helna, et nichil aliud. Si quelibet autem persona hunc titulum dotis infringer temptaverit non solum excommunicationi vel malediction sit nexus, verum etiam et anathematizatus et a regno Dei exclusus nisi poenitendo intervenerit lacrymarum rivus, et insuper satisfactionis frutus. Et hec nostra concession vel donation perpetuo vigore

sit stabilita et usque in eternum firma. Concedimus etiam ei omnes suos alodes quos habet in eadem villa vel ubique cum omnibus suis superius scriptis.

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Facta est autem hec consecration III idus februarii anno XXII, regnante Henrico, rege Franciae.

- + Berengarius, episcopus +. Sig+num Petri, tunc temporis capellani. Sig+num Bonifilii, presbyteri. Sig+num Pontii. Sig+num Bernardi. Sig+num Johannes Durandi. Sig+num Petri Vincentii. Sig+num Giffredi. Sig+num Golfredi. Sig+num Seniofredi.
- Et ego jam dictus Bernardus Amalrichi dono hac die consecrationis ad Sanctum Vicentium, et ad ipsam suam ecclesiam, petiam unam de vinea quam habeo in loco quem vocant Gardiola.

 Dominicus, sacer, qui hanc dotem scripsit et sub + die et anno quo supra.

V Marca [col. 1162] dated 1073. Consecration of Sainte-Marie de Riquer.

Canonica sancitum est auctoritate ut nemo præsumat cænobium aut monasterium construere sine Episcopi proprii consilio aut voluntate. Propterea ego Raimundus gratia Dei Elenensis Episcopus ad consecrationem Ecclesiæ sanctæ Dei genitricis Mariæ fundatæ in loco qui vocatur Richer ab Abbate sancti Michaelis Gerberto & monachis seu à fundatore ejusdem Ecclesiæ Bernardo Seniofredi evocatus adveni; omnibusque quæ ad cultum dedicationis pertinent rite peractis, visum est mihi & præfato Abbati ac ejusdem loci fundatori Bernardo Seniofredi ut tantæ sanctitatis locus, qui hactenus fuerat solitarius ac desertus, dehinc esset cella & perpetua ac propria habitatio monachorum. Sed ejusdem parrochiæ Ecclesiæ scilicet sancti Andreæ clerici zelo invidiæ ac malitiæ suæ ducti persuaserunt Petro Ysarn, quæ predictam Ecclesiam sancti Andreæ tenebat ad fevum dicentes & hanc sanctæ Mariæ similiter cum omnibus quæ adquirere potuisset suam esse debere. Qui prenominatus Petrus conquestus est de Abbate & et monachis, ac præcipuè de Bernado ejusdem Ecclesiæ fundatore, quòd injustè sibi ibi tollerent sua. Sed antedictus Abbas & prænominati monachis & supradictus Bernardus responderunt qui prædicta nec Ecclesiæ sanctæ Mariæ nec quicquid ad illam perinuit nec clericus illorum nec alius quisquam hominum per manum eoram unquam tenuit. Tamdui haec altercario inter eos fuit donec res in præsentia ejusdem Episcopi & Arnalli Riculfi ceterorumque bonorum hominum venit; qui dederunt consilium ut haec res tam carissimorum amicorum non ventilaretur in publicum, sed Ecclesia sancti Andreæ, quae hactenus obtinnerat dominium, loco subjectionis prædictæ Ecclesiæ sanctæ Mariæ hoc haberet beneficium, scilicet vineas octo modiorum cum afan aut quatuor sine afan, & prædicto Petro Ysani quadraginta solidos denariorum Narbonensium, & ut in festivitate sancti Andreæ monachi ejusdem cellæ eant ad eandem Ecclesiam Missam canere, nullamque partem requirant monachi in offerendis vel oblationibus ejusdem loci, sed nec baptisma ibi celebrant, nec partem defunctorum quae ad illos pertinet accipiant, parrochiæ ejusdem omnino non accipiant offerendas aut decimas aut primitias, de cetero francus, liber & sine omni illorum & Ecclesiæ sancti Andreæ subjectione fit prædictus locus sanctæ Mariæ; excepto quòd in omnibus festivitatibus sanctæ Mariæ sint omnes clerici sancti Andreæ apud sanctam Mariam, dentque eis monachi medietatem de offertis; sed in assumptione sanctæ Mariæ nullam partem in omnibus quæ offeruntur vel quocunque modo Ecclesiæ tribuuntur clerici non præsumant requirere; qui sicut monachi in die sancti Andreæ, ita & clerici in die sanctæ Mariæ gratis debent illis servire. Sed nec Bernardus Seniofredi, nec uxor, nec filius ejus, nec posteritas illorum ibi dominium nec seniorium accipiant aut requirant, nec clerici nec ullus seniorum Ecclesiæ sancti Andreæ, ne ullus omnino hominum, excepto Abbato sancti Michaelis & monachis, qui etiam potestatem non habeant dandi nec vendendi nec camiandi ad damnum sanctæ Mariæ, sed fit semper cella & monasterium monachorum. Quòd fi Abbas aut monachi aut ullus homo monachos ejecerit, au ea quæ hodie habet vel inantea annuente Domino adquisierit, alteri dederit vel tulerit, licitum fit filiis Bernardi aut ipsi aut posteritati suæ & Abbati & monachis & cunctis aliis ea quæ dederunt recuperandi, & post hoc Ecclesia sanctæ Mariæ in subjectione Ecclesiæ sancti Andreæ redeat ut antea erat. Facta est hæc libertas & exvacuatio hujus Ecclesiæ Nonas Aprilis anno xiii. Regni Philippi Regis, Raimundus gratia Dei Elenensis Episcopus. Gilbertus Abba. Arnallus Riculfi. Raimundus Udalgarii. Bernardus Gauzberti. Petrus Ysarni. Bernardus Seniofredi. Petrus Suniarii. Bernardus Suniarii. Guillelmus Suniarii. Berengarius Guifredi. Arnallus Mironi scripsit die & anno quo suprà. Sunt suprascriptæ vineæ peciæ duæ in loco qui vocatur Gorgner, qui fuerunt de Mir Seniofredi & de Guillelmo Macode, & in Grameners pecia una, qui fuit de Mir Seniofredi. In eodem loco pecia una, qui fuit de Bernardo Seniofredi, & de Oliba Seniofredi.

W CR [7] (p.451) dated 1102.

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Consecration of Saint-Vincent de Mantet.

Anno Domini incarnationis post millesimo [CII], era millesima CXL, indicatione XIII, XIII kalendas octobris, venit nobilissimus Ermengaldus, episcopus Elenensis, et Bernardus, archidiaconus, et Petrus [...] predicte sedis et prior Alme Marie Cornelianensis cum innumeris

fidelium clericorum et laicorum turmis, ad dedicationem ecclesie Sancti Vincentii martiris, in valle Confluentis, site in villa Mentedi. Igitur nos prefatus episcopus et prefati clerici confirmamus predicte ecclesie suam parroquiam terminatam, his terminibus: ab oriente in colle Campelles, a meridie in Rochis Albis, a parte vero circi venit in Finestrellas, ab occidente in Fonte Frigida et descendit in Plane de Fourno. Infra prescriptos terminos confirmamus ei decimas, primicias et fidelium oblationes et de cimiteriis XXX passibus, et de molinas fideliter mente decimum et de omnes [...] que fuerint factas in prefata villa sive infra predictos terminos de una quaque singulos [...] et cuncta que divino cultui pertinent eo tenore ut apostolica auctoritate subdita sit sancte matri Elenensi ecclesie et dicte Alme Marie Corneliani. Si quis autem quod non obtamus huius nostri decreti presumptuosus temerator extiterit, tamdiu se noverit segregatum ab omni ritu fidelium christianorum donec resipiscat et ad plenam satisfactionem venerit. Pro temporali tamen vinculo quidquid ablatum fuerit, reddatur in quadruplum.

Donata vero a nobis est prephata ecclesia hujus dotis titulo, anno XLII regnante Philipo rege. Et per unum quemque annum pergat clericus de predicta ecclesia duas vices ad sinodum et faciat censum [...]

Sig+num Arnaldus Izerni. Sig+num Stephani Izerni. Sig+num Petri Mironis [...]
Raimundus, levita atque cancelarius, qui ita scripta sub + anno et die prefatis.

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Bibliography

Primary Sources

Annales Bertiniani [Ed.] Georg Waitz, Monumenta Germaniae Historica, Hanover

1883. For English edition: Nelson, J.L. [Tr. & Ed.] The Annals of

St-Bertin Manchester (Manchester University Press) 1991.

Iohannes Biclarensis. For relevant extracts, see P. Geary, *Authors* of the Middle Ages, Farnham, Surrey (Ashgate Publishing

Ltd./Variorum) 1996.

Chronicon Moissiacense Maius [Tr. & Ed.] David Claszen & J. M. J. G. Kats, [thesis] 2012, Leyden

University.

De agri cultura Marcus Porcius Cato. [Tr. & Ed.] William Davis Hooper & Harrison

Boyd Ash, Cambridge, Mass. (Harvard University Press) 1935.

Marcus Vitruvius Pollio. [Tr. & Ed.] G.F.Bignami, San Francisco

(Nature Publishing Group) 2004.

De Diversis Artibus Theophilus. [Ed.] C.Dodwell, London (Nelson) 1961.

Gesta comitum barcinonensium (Chròniques catalanes, v.2) [Eds.] L. Barrau Dihigo & J. Massó i

Torrents, Barcelona (Institut d'Estudis Catalans) 2007. Gregory of Tours. [Tr] M Guizot, Paris (Didier) 1862.

Paulus Diaconus. [Ed.] Georg Waitz, Monumenta Germaniae

Historica, Hanover 1888.

Isdore of Seville, , [Ed] Jacques-Paul Migne, Patrologia Latina, Paris

(Migne) 1844-55, <u>www.forumromanum.org</u>
Arxiu real de Barcelona, No.1. <u>www.mecd.gob.es</u>

Pierre de Marca, Paris, 1688.

Historia de regibus Gothorum, Vandalorum et Suevorum Liber feudorum maior

Chronicon

De architectura

Historiae francorum

Historia Langobardorum

Marca hispanica sive Limes Hispanicus, hoc est, geographica et historica descriptio Cataloniae, Ruscinonis et circumjacentium populorum

Secondary sources

No editorial details. Actes des congrès de la Société des historiens médiévistes de

l'enseignement supérieur public, [8] Tours, 1977.

d'Abadal i de Vinyals, R. Els temps i el regiment del comte Guifred el Pilos, Ausa (Sabadell)

1989.

Catalunya carolíngia. [v.1] El domini carolingi a Catalunya.

Barcelona (Institut d'Estudis Catalans) 1986.

Dels Visigots als Catalans, Barcelona (Edicions 62) 1969.

Els precedents antics a la historia de Catalunya, Barcelona (Ed

Selecta) 1967a.

Els primers comtes Catalans, Barcelona (Eds Vicens-Vives) 1967b. L'abat Oliba bisbe de Vic i la seva epoca, Barcelona (Aedos) 1962. 'La Catalogne sous l'empire de Louis le Pieux', Études

roussillonnaises [IV] 1954-55, [V] 1956.

'Com neix i com creix un gran monestir pirinenc: Eixalada-Cuixà',

Analecta montserratensia [VIII] 1954-55.

'Viollet-le-Duc et le rationalisme médiéval', *BM* [93:1] 1934. *Chantiers médiévaux*, Paris (Desclée de Brouwer) 1996.

Medieval structure: the Gothic vault, Toronto (University of Toronto

Press) 1972.

La construction romaine, Paris (Picard) 2005.

Abraham, H. Aceto, F. et al. Acland, J.

Adam, J-P.

Adell i Gisbert, J-A & Pujades i Cavalleria, J. Adhémar, J.

Ainaud de Lasarte, J.

Ainaud de Lasarte, J. & Vaillant, N. Alart, B. Albert i Corp, E.

Alibert, C & Aspord-Mercier, S. [Eds.]

Alonso, F. G.

Amargier, P.

Arce, I.

Aubert, M.

Aumard, S.

Aunay, B., Le Strat, P. et al.

Aurell, M.

Avril, J.

Bailbe, N.

Balcells, A. & Pujol, E.

Balcells, A., Pujol, E., Sabater, J.

Baldwin Brown, G. [Ed]. Bango Torviso, I.G. 'Noves aportacions al coneixement de l'estructura arquitectònica de la cathedral de Vic', *Lambard* [8] 1995.

'Influences antiques dans l'art du Moyen Age français', *Studies of the Warburg Institute* [7], London, 1939.

'Notas sobre iglesias prerománicas', *Anales y Boletin de los Museos d'Arte de Barcelona*, v.4, nos.3 & 4, 1948.

'Lluís Domènech i Montaner: el polític i la seva època', in L. Carulla i Canals & M. Font i Bernaus [Eds], *Lluís Domènech i Montaner. En el 50*^è *Aniversari de la seva mort*, Barcelona (Fonds Arquer) 1973. *Catalogne romane*, Saint-Léger Vauban (Zodiaque) 1994.

Cartulaire roussillonnais, Perpignan 1880.

L'obra social i política de l'abat-bisbe Oliba, Barcelona (Rafael Delmau) 1999.

Voyages pittoresques et romantiques du baron Taylor dans l'ancienne France [Languedoc [2], Aude-Pyrénées Orientales], Portet-sur-Garonne (Loubatières) 2012.

'Archaeology and nationalism: The development of archaeology in Catalonia in the early twentieth century', Complutum [24:2] 2013. Une Église de renouveau. Réformes et réformateurs de Charlemagne à Jean Hus, 750-1415. Paris (Éditions du Cerf) 1998. 'Umayyad Building Techniques and the Merging of Roman-Byzantine and Partho-Sassanian Traditions: Continuity and Change', Late Antique Archaeology, [4:1] 2008.

'Les enduits dans les constructions du Moyen Âge', *BM* [115:2] 1957.

L'art roman en France, Paris (Flammarion) 1962.

'L'église paroissale et les campagnes médiévales', Bulletin du centre d'études médiévales d'Auxerre (BUCEMA) (http://cem.revues.org) 2010.

Introduction à la géologie du karst des Corbières, Bureau de Recherches Géologiques et Minières (BRGM), Ministère de l'enseignment supérieur et de la recherche, France. www.inforterre.brgm.fr/rapports/RP-51595-FR

'Pouvoir et parenté des comtes de la Marche hispanique (801-911)', in Régine Lejan [Ed], *La royauté et les élites dans l'Europe carolingienne*, 1998.

Les Noces du Comte: Mariage et pouvoir en Catalogne, 785-1213, Paris (Publications de la Sorbonne) 1994.

'Églises paroissiales et chapelles de châteaux aux XII^e-XIII^e siècles', in *Seigneurs et seigneuries au Moyen Âge. Actes du 117^e congrès national des Sociétés Savantes, Clermont-Ferrand, 1992*, Paris (Comité des Travaux Historiques et Scientifiques) 1995.

Apparentements et symbolisme des clochers-tours du Roussillon, Perpignan (Société agricole, scientifique et littéraire) 1990.

Les clocher-tours du Roussillon, Perpignan (Société agricole, scientifique et littéraire) 1989.

'Les caractères de l'architecture préromane en Roussillon', SMC (2) 1971.

Història de l'Institut d'Estudis Catalans, Barcelona (Institut d'Estudis Catalans) 2002.

La Mancomunitat de Catalunya i l'autonomia, Barcelona (Institut d'Estudis Catalans) 1996. .

Vasari on Technique, New York (Dover Publications) 1960. 'Du romain au roman: problèmes de périodisation et de nomenclature en Espagne', *Perspective* [4] 2008.

http://journals.openedition.org.

Arte prerománico hispano. El arte en la España de los siglos VI al XI, Summa Artis, Historia General del Arte, vol. VIII-II, Madrid (Espasa Calpe) 2001.

Les actes de consagracions d'esglesies de l'antic bisbat d'Urgell, segles IX-XII, La Seu d'Urgell (Societat Cultural Urgel litana) 1986. The Two Cities. Medieval Europe, 1050-1320, London & New York (Routledge) 1992.

Les temps de la construction. Processus, acteurs, matériaux.

Recueil de textes issus du Deuxième congrès francophone d'histoire de la construction, Lyon 29-31 janvier 2014. Lyon (École national supérieur d'architecture de Lyon) 2014.

'Religious Architecture during the Romanesque period in Catalonia (11th – 13th century): Assessment and critical notes', *Catalan Historical Review* (4) 2011.

'Culture visuelle et reflection architecturale au début du XI^e siècle: les voyages de l'abbé-évêque Oliba. 1^{ère} partie: Les premiers voyages, avant l'itinéraire vers Rome', *SMC* [40] 2009.

Contre l'art roman? Paris (Fayard) 2006.

Chronologie de l'art du Moyen Âge, Paris (Flammarion) 2003a. Histoire de l'art, Paris (Presses universitaires de France) 2003b. L'art médiévale, Paris (Presses universitaires de France) 2001. Le monde roman: villes, cathedrals, monastères, Köln; London (Taschen) 1998.

The Early Middle Ages. From Late Antiquity to AD 1000, Cologne (Taschen) 1997.

'Aspectes de l'estudi de les catedrales catalanes medievales', Lambard [8] 1995.

L'art pre-romànic a Catalunya, Barcelona (Edicions 62) 1981.

'Nouveaux apports au dossier archéologique de l'église Saint-Michel de Cuxa', *Journal des Savants* [3] 1977.

Escrits d'arquitectura: art i politica (par Josep Puig i Cadafalch), Barcelona (Institut d'Estudis Catalans) 2003.

Artistes, artisans et production artistique au Moyen-Âge. Colloque international, Université de Rennes, May 1983; Paris (Picard) 1990 Le paysage monumental autour de l'an Mil. Colloque international CNRS: Hugues Capet, 987-1987, Paris (Picard) 1987.

La Catalogne et la France méridionale autour de l'an mil, Barcelona (Generalitat de Catalunya) 1991.

'Identification et localisation des roches et des carrières

utilisées dans la construction en Roussillon', *Bilan Scientifique 2015. Direction Régionale des Affaires Culturelles (Drac)*, Montpélier (Ministère de la Culture et de la Communication, Direction Générale des Patrimoines) 2016.

Nouvelle histoire des Capétiens, 987-1214, Paris (Editions du Seuil) 2012.

La mutation de l'an mil: a-t-elle eu lieu? Servage et chevallerie dans la France des X^e et XI^e siècles, Paris (Fayard) 1997.

'The "Feudal Revolution", Past and Present [152] 1996.

Medieval Frontier Societies, Oxford (Clarendon Press) 1989.

European Towns, London (Council for British Archaeology) 1977. The Crucible of Europe, London (Thames & Hudson) 1976.

Medieval Frontier Societies, Oxford (Clarendon Press) 1989. 'Els levites: el poder fàctic del territory comtal català', Revista

Cultural de Catalunya [26] 2020.

'Types de village et églises paroissales (anciens diocèses de Carcassonne et Narbonne)', *SMC* (30) 1999.

Baraut, C.

Barber, M.

Baridon, L., Fleury, F., Mastrorilli, A., Mouterde, R. & Reveyron, N. [Eds.]

Barral i Altet, X.

Barral i Altet, X. [Ed]

Barral i Altet, X. [Ed.]

Barral i Altet, X. [Ed.]

Barral i Altet, X., Iogna-Prat, D., Mundó, A., Salrach, J., Zimmermann, M. [Eds.] Barrau, C de, Catafau, A., Giresse, P., & Martzluff, M.

Barthélemy, D.

Barthélemy, D. & White, S.D. Bartlett, R & MacKay, A. Barley, M. Barraclough, G. Bartlett, R. & MacKay, A. Bastardas, J.

Baudreu, D.

Beck, P. [Ed.]. L'innovation technique au Moyen Âge. Actes du VI^e Congrès International d'archéologie médiévale, Paris (Éditions Errance) 1998. Beckwith, J. Early Medieval Art, London (Thames & Hudson) 1969. Bell, E. The Development of Mathematics, New York (Dover Publications) 1945. Beltrán de Heredia Bercero, J. & 'La catedral romànica de Barcelona: revisió de les dades arqueològiques i de l'escultura', Quaderns d'arqueologia i història Lorés Otzet, I. de la cuitat de Barcelona [1] 2005. Benoît, P. & Braunstein, P. [Eds.] Mines, carrières et métallurgie dans la France médiévale: actes du colloque de Paris, juin 1980, Paris (CNRS) 1983. Benoît, P. & Cailleaux, D. [Eds.] Moines et métallurgie dans la France medieval. Colloque universitaire, Paris I Panthéon - Sorbonne, 13-14 mars 1987, Paris (AEDEH) 1991. Bernardi, P. Bâtir au Moyen Âge, Paris (CRNS Éditions) 2011. Bertier de Sauvigny, G de The Bourbon Restoration, Philadelphia (University of Philadelphia Press) 1966. Bessac, J-C. et al. La construction en pierre, Paris (Éditions Errance) 1999. L'outillage traditionnel du tailleur de pierre. Revue archéologique de Narbonnaise (Supplément 14), Paris (CRNS) 1993. 'Outils et techniques spécifiques du travail de la pierre dans l'iconographie médiévale', pp.169-84 in Odette Chapelot & Paul Benoît, Pierre et Métal dans le batîment au Moyen Âge, Paris (École des Hautes Études en Sciences Sociales) 1985. Bevan, B. The History of Spanish Architecture, London (Batsford) 1938. Bisson, T. Cultures of power: lordship, status and process in twelfth-century France, Philadelphia (University of Philadelphia Press) 1995. Bisson, T [Ed]. Medieval France and her Pyrenean neighbours: studies in early institutional history, London (Hambledon Press) 1989. 'The "Feudal Revolution", Past and Present [142] 1994. Bizzarro, T. Romanesque Architectural Criticism: A Prehistory, Cambridge (Cambridge University Press) 1992. Blair, J. et al. English Medieval Industries: Craftsmen, Techniques, Products, London (Hambledon) 1999. Bloch, M. Feudal Society, London (Routledge & Kegan Paul) 1962. Bloom, J. B. Architecture of the Islamic West. North Africa and the Iberian Peninsula, 700-1800, New Haven, London (Yale University Press) Bolòs, J. Temps de monestirs. Els monestirs catalans entorn l'any mil, Barcelona (Pòrtic/Generalitat de Catalunya) 1999. 'Poders locals, valls i pobles als pirineus catalans a l'edat midjana', www.academia.edu/6026767 (no date). Bolòs, J. & Hurtado, V. Atles dels comtats de Cerdanya i Berga, Barcelona (Rafael Dalmau) 2015. Atles dels comtats de Rosselló, Conflent, Vallespir i Fenollet (750-991), Barcelona (Rafael Dalmau) 2009.

Bonde, S.

Bonnassie, P.

Press) 1994. Hommes et sociétés dans l'Europe de l'An Mil, Toulouse (Presses de

Fortress-Churches in Languedoc, Cambridge (Cambridge University

l'Université de Toulouse-Le Mirail) 2004.

'Le clergé paroissial aux IX^e-X^e siècles dans les Pyrénées orientales et centrales', pp.153-66 in P. Bonnassie [Ed], Le clergé rural dans l'Europe médiévale et moderne: actes des XIII^e Journées internationales d'histoire de l'Abbaye de Fleuran, 6-8 septembre 1991, Toulouse (Presses universitaires du Mirail) 1995.

'Les sagreres catalanes: la concentration de l'habitat dans le <çercle de paix> des églises, (XIe siècle)', pp.68-79 in Fixot, M. & Zadora-Rio,

E. [Eds], 'L'environnement des églises et la topographie religieuse des campagnes médiévales', Actes du III^e Congrès d'archéologie médiévale, Aix-en-Provence, 28-30 septembre, 1989. Paris (Éditions de la maison des sciences de l'homme) 1994.

From Slavery to Feudalism in South-Western Europe, Cambridge (Cambridge University Press) 1991.

La Catalogne au tournant de l'an mil, Paris (Albin Michel) 1990.

La Catalogne du milieu du X^e à la fin du XI^e siècle: croissance et mutation d'une société, Toulouse (Presses de l'Université de Toulouse – Le Mirail) 1976.

'Le chevet de Saint-Michel de Cuxa, nouvelles propositions', Études roussillonnaises (18) 2000.

'La mise en place du reseau paroissial en Capcir du $\rm IX^e$ au $\rm XIV^e$ siècle', $\it SMC$ (XXX) 1999.

'Églises abbatiales carolingiennes. Exemples du Languedoc-Roussillon', *SMC* (20) 1989.

Art roman, Vic-en-Bigorre (MSM) 2010.

The Art of the West, Oxford (Phaedon) 1963.

'La cathédrale romane: architecture, espaces, circulations', *SMC* [44] 2013.

'La personnalité littéraire d'Oliba', SMC [40] 2009.

'Église paroissale, cimetière et 'castrum' en Bas Languedoc (X^e- XII^e siècles)' in Fixot, M. & Zadora-Rio, E. [Eds] 1994.

Géologie du Languedoc-Roussillon, Montpellier (Presses du Languedoc/Éditions du BRGM) 1997.

'Councils, memory and mills: the early development of the Peace of God in Catalonia', *Early Medieval Europe* (8:1) 1999.

'Law, Land and Ritual in the Midi, 900-1100', Viator (28) 1997.

"Fabrica, Opus" and the Dating of Medieval Monuments', *Gesta* (15/1) 1976.

Le style roman, Paris (Larousse) 1941.

'Le premier art roman', Journal des savants, 1929.

'Opposition et équilibre: le rationalisme organique de Viollet-le-Duc,' Revue de l'Art [112] 1996.

The Rise of Western Christendom: Triumph and Diversity, AD 200-1000, Oxford (Wiley-Blackwell) 2013.

Étude sur la condition des populations rurales du Roussillon au Moyen-Âge, Geneva (Slatkine) 1975 (reprint).

'L'Architecture romane en Catalogne avant le XII^e siècle', *Bulletin hispanique* [16:3] 1914.

'Les influences de l'art oriental et les goths dans le Midi de la France', Anuari de l'Institut d'Estudis Catalans, 1908.

'Le linteau de Saint-Génis des Fontaines', *Congrès archeologique de France, Carcassonne & Perpignan, 1906*, Paris (A. Picard) 1907.

Notes sobre l'art religiós en el Rossilló, Barcelona (L'avenc) 1901. 'L'Archéologie du moyen âge et ses methodes', Études critiques.

'La question de Saint-Front', BM [60] 1895.

Paris 1900.

'Note sur l'église de Montagne (Gironde), BM [59] 1894.

'Medieval Architectural Design Methods', Gesta (11/2) 1972.

Romanesque Europe, London (Batsford) 1960.

'Atlas historique et technique de la pierre à bâtir bourguignonne. Plateforme numérique mutualiste sur la nature et l'usage de la pierre', Bulletin du centre d'études médiévales d'Auxerre (BUCEMA) (http://cem.revues.org) 2011.

Bonnery, A.

Bonnery, A. & Perino, J. Bony, J.

Boto, G. & Sureda, M.

Bourgain, P.

Bourin, M. & Durand, A.

Bousquet, J-C.

Bowman, J.

Branner, R.

Bréhier, L.

Bressani, M.

Brown, P.

Brutails, J-A.

Bucher, F. Busch, H. Büttner, S. 'Matériaux et constructions: sciences et techniques des matériaux. De la carrière à la mise en oeuvre', *Bulletin du centre d'études médiévales d'Auxerre (BUCEMA)* (http://cem.revues.org) 2010.

Caballero Zoreda, L. & Feijoo Martínez, S.

Caballero Zadora, L. & Utrero Agudo, M.

Caillet, J-P.

Caillet, J-P. [Ed]. Caldano, S.

Calkins, R.

Camps i Arboix, J.

Camps i Sòria, J.

Camps i Sòria, J. & Lorés i Otzet, I. Carbonell i Esteller, E. 'La iglesia altomedieval de San Juan Bautista en Baños de Cerrato (Palencia)', *Archivo Espagñol de Arte* [71] 1998.

'Una aproximación a las técnicas constructivas de la Alta Edad Media en la Península Ibérica. Entre visigodos y omeyas.' Arqueología de la Arquitectura [4] 2005.

'Le mythe du renouveau architectural roman', *CCM* [43] 2000. 'Architecture et décor monumental', in *L'Europe de l'an mil*, [Ed] P Riché, 2001.

'Le mythe du renouveau architectural roman', *CCM* [43] 2000. *L'art du Moyen Âge: Chrétieneté, Islam, Byzance*, Paris (Gallimard-RMN-Carré) 1995.

L'art carolingien, Paris (Flammarion) 2005.

'L'architecture romane en Ligurie. État des questions', BM (174/1) 2016.

Monuments of Medieval Art, London (Cornell University Press) 1979.

La Mancomunitat de Catalunya, Barcelona (Editorial Bruguera) 1968.

'Le remier art roman> en Catalogne' in Le remier art roman>
cent ans après, [Ed] E Vergnolle & S Bully, 2012.

'Le patronage dans l'art roman catalan', SMC [36] 2005.

'L'arquitectura religiosa a Catalunya a l'entorn de l'any 1000', in *Monestirs i territori. 1200 aniversari de la fundació del monestir de Sant Esteve de Banyoles*, [Ed] To Figueras, L & Galofré, J, Banyoles (*Quaderns* 33/CECB) 2013.

'Algunes reflexions sobre l'arquitectura a Catalunya a l'entorn de l'any Mil', in *La Catalogne et la France meridionale autour de l'an mil*, [Eds] X Barral i Altet, D Iogna-Prat, A Mundó, J Salrach, & M Zimmermann, 1991.

'La razzia d'Almansur a Catalunya l'any 985. Afecta l'arquitectura de finals del seglo X', in *Études offertes à Pierre Ponsich,* M Grau [Ed], 1987.

'L'art de l'an 1000 en Catalogne, SMC (32) 2001.

Carulla i Canals, L. & Font i Bernaus, M.

Lluís Domènech i Montaner. En el 50^e aniversari de la seva mort, Barcelona (Fonds Arquer) 1973.

Castan, A., Giry, A. & de Lasteyrie, R. [Eds]

Mélanges d'archéologieet et d'histoire: archéologie du Moyen Âge, Paris (Alphonse Picard) 1886.

Castellvi, G.

La Via domitia et ses embranchements, Perpignan (Éditions Trabucaire) 2012.

Catafau, A.

Les celleres et la naissance du village en Roussillon, Perpignan (Presses universitaires de Perpignan) 2014.

'Petites, nombreuses, isolées? Les églises des vallées pyrénéennes', *Domitia* (12) 2011.

'Paroisse et cellera dans le diocese d'Elne X^e-XII^e siècles', *SMC* (30) 1999.

Catafau, A. [Ed]

Les ressources naturelles des Pyrénées au Moyen Âge à l'époque moderne. Actes du Congrès international RESOPYR.1, Font Romeu 2002, Perpignan (Presses universitaires de Perpignan) 2005.

Catlos, B.

The Victors and the Vanquished: Christians and Muslims of Catalonia and Aragon 1050-1300, Cambridge (Cambridge University Press) 2004.

Cattaneo, R. L'Architettura in Italia dal secolo VI al mille circa, Venice 1888. [English translation/Amazon reprint]. Caumont, A de. Abécédaire ou Rudiment d'archéologie, Caen (F Le Blanc, Hardel) Cours d'Antiquités monumentales: histoire de l'Art dans l'Ouest de la France, depuis les temps les plus reculés jusqu'au XVII^e Siècle, Paris (Lance) 12v. 1830-43. Cazes, A. La vallée du Rojà, Perpignan (Guide Touristique 'Conflent') unknown date. Le Roussillon sacré, Prades (Revue 'Conflent') 1990. Saint-Jacques de Villefranche, Prades (Revue 'Conflent') 1984. Les églises de la vallée de Molig, Prades (Labau) 1969. Chandler, Cullen J. Carolingian Catalonia: politics, culture and identity in an imperial province, 778-987, Cambridge (CUP) 2019. 'Between court and counts: Carolingian Catalonia and the aprisio grant, 778-897', Early Medieval Europe (11/1) 2002. Chapelot, O. & Benoît, P. Pierre et Métal dans le bâtiment au Moyen Âge, Paris (École des Hautes Études en Sciences Sociales) 1985. Chastel, A. L'art français. Pré-Moyen Âge, Moyen Âge, Paris (Flammarion) Chavarría Arnau, A. 'Churches and aristocracies in seventh century Spain: some thoughts on the debate on Visigothic churches', Early Medieval Europe [18] 2010. Choisy, A. Histoire de l'architecture, 2v. Paris (Slatkine Reprints) 1987. L'art de bâtir chez les Byzantins, Paris, 1883. Cingolani, S. M. La formació nacional de Catalunya i el fet identitari dels catalans (785-1410), Barcelona (Generalitat de Barcelona) 2015. 'Estratègies de legitimació del poder comtal: l'abat Oliba, Ramon Berenguer I, la Seu de Barcelona i les Gesta Comitum Barchinonensium', www.academia.edu/3768667, 2008. Clapham, A. Romanesque Architecture in Western Europe, Oxford (Clarendon Press) 1936. English Romanesque Architecture after the Conquest, Oxford (Clarendon Press) 1934. Colardelle, M. 'Les paroisses rurales', in Naissance des arts chrétiens, Paris (Imprimerie nationale: Ministère de la culture et de la communication) 1991. Colardelle, R. & Loebell, A. 'Église Saint-Jean-Baptiste, Viuz-Faverges (Haute-Savoie)', in Christian Sapin [Ed], Enduits et Mortiers. Archéologie médiévale et moderne, Paris (CRNS) 1991. Coldstream, N. 'The Architect, History and Architectural History', Transactions of the Royal Historical Society [13] 2003 (Sixth Series). Colin, M-G. 'Christianisation et peuplement des campagnes entre Garonne et Pyrénées IV^e-X^e siècles', *Archéologie du Midi Médiéval*, Supplément

Collingham, H.

Collins, R.

Colombier, P du.

The July Monarchy: A Political History of France, London & New York (Longman) 1988.

N° 5, Carcassonne (Centre d'archéologie médiévale du Languedoc)

Visigothic Spain, Oxford (Blackwell) 2004.

2008.

Early medieval Spain, Basingstoke (MacMillan) 1995.

Law, Culture and Regionalism in Early Medieval Spain, Aldershot (Variorum) 1992.

The Arab Conquest of Spain, Oxford (Blackwell) 1989.

'Charles the Bald and Wilfred the Hairy', in *Charles the Bald: Court and Kingdom.* [Eds] M Gibson & J Nelson, 1981.

Les chantiers des cathédrals: ouvriers, architects, sculpteurs, Paris (Picard) 1989.

Comps, J-P.

Conant, K. J.

Cordero di San Quintino, G.

Costa Badia, X.

Courtenay, L. & Alcock, N.

Crook, J.

Cummings, C.

Darcos, X. Davy, M-M. Dartein, F de. Davies, C.

Debelmas, J. Dethier, J. Davis, J. R.

Débax, H. & Pontiès, F.

Delcor, M.

De la Tour, I.

Demians d'Archimbaud, G.

Depreux, P.

Deshouilères, F.

'De Roussillon en Conflent. La lente mise en place du réseau routier de l'Antiquité à nos jours', *Domitia* (8/9) 2007.

Carolingian and Romanesque Architecture, Harmondsworth (Penguin) 1979.

'Early Examples of the Pointed Arch and Vault in Romanesque Architecture', Viator (2) 1971.

'The History of Romanesque Cluny as clarified by Excavations and Comparisons', *Monumentum* [7], Journal of the International Council on Monuments and Sites, https://www.icomos.org (no date or page numbers).

Dell'italiana architettura durante la dominazione longobarda. Ragionamento, Brescia, 1829.

'Los monasterios nacidos a través de pactos en los condados catalanes del siglo IX. Reflexiones en torno a la pervivencia de un modelo fundacional visigodo en tiempos de la reforma carolingia', *Hortus Artium Medievalium* [23] 2017.

'Romanesque Roofs: the Nave of Jumièges Abbey and the Common Tie-Beam Tradition in Northern Europe', *Medieval Archaeology* [59:1] 2015.

The Architectural Setting of the Cult of Saints in the early Christian West, Oxford (Clarendon) 2000.

A History of Architecture in Italy, Boston & New York (Houghton, Mifflin) 1901.

Mérimée, Paris (Flammarion) 1998.

Initiation à la symbolique romane, Paris (Flammarion) 1977.

Architecture lombarde, Paris (Dufardin) 1892.

'Matching Mortars for Pointing', *Historic Churches* 2012, Cathedral Communications Limited @ www.buildingconservation

Géologie de la France, Paris (DOIN Éditeurs) 1974.

Architectures de terre, Paris (Éditions du Centre Pompidou) 1986. Charlemagne's practice of empire, Cambridge (CUP) 2015.

'Saint Hilaire, Saint Saturnin et Roger. Un réseau guilhelmide dans le comté de Carcassonne au X^e siècle', <u>https://halshs.archives-ouvertes.fr/halshs-00498842</u> [2010].

'Les églises romanes et l'origine de leur orientation', *SMC* (18) 1987. 'Les prieurés augustins en Roussillon et la statuaire romane'. *SMC* (2) 1971.

'Problèmes poses par l'église de Saint-Michel de Cuixa consacrée en 974 et par les églises successives qui l'ont précédée', *SMC* (6) 1975. 'Le village et l'habitat rural', in *Le paysage monumental autour de l'an Mil*, X. Barral i Altet [Ed], 1987.

'The Carolingian Abbey Church of Psalmodi: Formal History and Historical Context', *Gesta* [25:1] 1986.

'Islam, Christianity and the Problem of Religious Art', in John P. O'Neill [Ed], *The Art of Medieval Spain, AD 500-1200*, New York (Metropolitan Museum of Art/Harry N. Abrams) 1993.

'Les origines de Saint-Martin du Canigou de la légende de l'histoire', *SMC* [3] 1972.

'Private Churches in Ancient France', in *Early Medieval Society*, [Ed] S Thrupp, 1967.

Histoire artistique de l'Occident médiéval, Paris (Armand Colin) 1992.

Les sociétés occidentales du milieu du VI^e à la fin du IX^e siècle, Rennes (Presses universitaires de Rennes) 2002.

'La théorie d'Eugène Lefèvre-Pontalis sur les écoles romanes', BM [84] 1925.

Dethier, J. Díaz y Díaz, M.

Díaz, P.

Dix, B. Dodds, J. D.

Doig, A.

Domènech i Montaner, L. Draper, P.

Duby, G.

Duhamel-Amado, C. & Catafau, A.

Dunn, M. Duran-Porta, J.

Durliat, M.

Architectures de terre, Paris (Éditions du Centre Pompidou) 1986. Vie chrétienne et culture dans l'Espagne du VII^e au X^e siècles,

Aldershot (Variorum/Ashgate Publishing) 1992.

'Monasticism and Liturgy in Visigothic Spain', in *The Visigoths*, A

Ferreiro [Ed], 1999.

'Roman Lime Burning', Britannia [10] 1979.

Architecture and Ideology in Early Medieval Spain, Pennsylvania

(Pennsylvania State University Press) 1990.

'The Carolingian Abbey Church of Psalmodi: Formal History and Historical Context', *Gesta* [25:1] 1986.

Liturgy and Architecture from the Early Church to the Middle Ages, Farnham (Ashgate) 2008.

Estudis politics, Barcelona (Biblioteca popular de "L'Avenc") 1905. 'Islam and the West: the Early Use of the Pointed Arch Revisited', Architectural History (48) 2005.

Féodalité, Paris (Gallimand) 1996.

L'économie rurale et la vie des campagnes, Paris (Flammarion) 1977.

Histoire de la France, Paris (Larousse) 1995.

'Recherches sur l'évolution des institutions judiciaires pendant le X^e et le XI^e siècle dans le sud de la Bourgogne', *Le Moyen Âge* [52] 1946.

Les trois ordres, Paris (Gallimard) 1978.

Fidèles et aprisionnaires en réseaux dans la Gothie des IX^e et X^e siècles. Le marriage et l'aprision au service de la noblesse méridionale, Lille (Centre d'histoire de l'Europe du Nord-Ouest: Université Charles-de-Gaulle/Lille 3) 1998.

The Emergence of Monasticism, Oxford (Blackwell) 2000.

'The Lombard masters as a deus ex machina in Catalan First Romanesque', *Arte Lombarda* (156/2) 2009a.

'¿Lombardos en Cataluña? Construcción y pervivencia de una hipótesis controvertida.' *Anales de Historia del Arte* (vol. extra) 2009b.

'Les crypts monumentales dans la Catalogne d'Oliba. De Sant Pere de Rodes à la diffusion du modèle de crypte à salle', *SMC* (XL) 2009c. 'Una reconsideracío sobre els orígens de l'arquitectura romànica a Catalunya: el mite dels mestres llombards', *Catalan Review* XXII 2009

Espagne romane, Saint-Léger-Vauban (Zodiaque) 1993.

Existeix un art romànic català? Reflexions sobre l'arquitectura catalana del segle XI, Barcelona (Opera minora) 1988.

Des barbares à l'an mil, Paris (Éditions d'art Lucien Mazenod) 1985. L'art roman, Paris (Éditions d'art Lucien Mazenod) 1982.

'L'art roman en France', Journal des Savants 1972.

'Architecture romane', BM [130:4] 1972.

Pyrénées romanes, La-Pierre-qui-Vire/Zodiaque 1969.

'L'art roman en France (État des questions)', Anuario de Estudios Medievales [5] 1968.

Roussillon roman, Yonne (La Pierre-qui-Vire/Zodiaque) 1964.

La sculpture romane en Cerdagne, Perpignan (La Tramontane) 1957.

La sculpture romane en Roussillon, (4V) Perpignan (La Tramontane) 1948-54.

Le prieure de Notre-Dame de Serrabone, Perpignan (Les routiers du clan N-D de Serrabone) 1947.

'Art, Language and Romanesque', Gesta (28/1) 1989.

Dynes, W.

Eco, U.

Edson Armi, C.

Erlande-Brandenburg, A.

Art et beauté dans l'esthetique médiévale, Paris (Grasset) 1997.

'First Romanesque Wall Systems', Society of Architectural Historians (65/4) 2006.

Design and Construction in Romanesque Architecture, Cambridge (CUP) 2004.

'The Corbel Table', Gesta (39/2) 2000.

Masons and Sculptors in Romanesque Burgundy, 2v. Pennsylvania & London (Pennsylvania State University Press) 1983.

'Orders and Continuous Orders in Romanesque Architecture', *Society of Architectural Historians* (34/3) 1975.

De pierre, de l'or et de feu: la creation artistique au Moyen Âge IV^e-XIII^e siècles, Paris (Fayard) 1999.

La cathédrale, Paris (Fayard) 1989.

'Taille de la pierre et fonctionnement d'un chantier roman: l'exemple de Saint-André de Rosans', pp.36-41 in Fernandez, V. [Ed.] *De la création à la restauration: travaux d'histoire de l'art offerts à Marcel Durliat pour son 75^e anniversaire,* Toulouse (Atelier d'histoire de l'art méridional) 1992.

The Romanesque Architecture of the Order of Cluny, Cambridge (Cambridge University Press) 1938.

Evans, J.

Esquieu, Y.

Fanning, S. Fariás Zurita, V.

Fels, E & Louis, R.

Fernandez, V. & Lombrail, N. [Eds.]

Fernie, E.

'Lombard Arianism Revisited', Speculum (56/2) 1981.

'La configuration d'un réseau routier medieval. L'exemple de la Catalogne aux XI^e – XIII^e siècles', Études roussillonnaises (XX) 2003. 'Les églises carolingiennes de Cuxa', Bulletin de la Société nationale des Antiquaires de France, 1948.

De la création à la restauration: travaux d'histoire et de l'art offerts à Marcel Durliat pour son 75^e anniversaire, Toulouse (Atelier d'histoire de l'art méridional) 1992.

Romanesque Architecture: the first style of the European age, New Haven (Yale University Press) 2014.

'Sant Vicenç de Cardona and Byzantine Architecture revisited', in Freixas & Camps, 2010.

'History and Architectural History', *Transactions of the Royal Historical Society* [13] 2003.

'Saint-Vincent de Cardona et la dimension méditérranéenne du premier art roman', *CCM* (43) 2000.

Art-historical theory and English Romanesque architecture, London (Courtauld Institute of Art) 1996.

Art History and its Methods, London (Phaidon) 1995a.

Romanesque architecture: design, meaning and metrology, London (Pindar Press) 1995b.

'The History of Medieval Architecture from Carolingian to Romanesque: Criteria and Definitions from 1925 to the present day', *Muqarnas* (8) 1991.

'Romanesque Architecture', in Fernie, E & Crossley, P [Eds] *A Companion to Medieval Art: Medieval Architecture and its Intellectual Content: Studies in Honour of Peter Kidson*, London (Hambledon Press) 1990.

Ferreiro, A. [Ed.] Février, P-A. The Visigoths: Studies in Culture and Society, Leiden (Brill) 1999. 'Towns in the Western Mediterranean' in European Towns: their Archaeology and Early History, [Ed] M W Barley, London (Academic Press) 1977.

Fleury, F., Baridon, L., Mastrorilli, A. [Eds.]

Les temps de la construction. Processus, acteurs, matériaux. Picard (Paris) 2016.

Fitchen, J. The Construction of Gothic Cathedrals, Oxford (Clarendon Press) Fixot, M. & Zadora-Rio, E. [Eds] L'environnement des églises et la topographie religieuse des campagnes médiévales. Actes du congrès international d'archéologie médiévale, Aix-en-Provence, 28-30 septembre 1989, Paris (Éditions de la Maison des Sciences de l'homme) 1994. Focillon, H. L'an mil, Paris (Armand Colin) 1952. Moyen Âge: survivances et reveils: étude d'art et d'histoire, Montreal (Valiquette) 1945. The Art of the West in the Middle Ages, Oxford (Phaedon) 1980. Art d'Occident: le moyen âge roman et gothique, Paris (Armand Colin) 1983. Focillon, H. Vie des forms suivi de Éloge à la main, Paris (Presses universitaires de France) 1984. Fontbona, F. 'Lluís Domènech i Montaner: Teòric i erudit', in L. Carulla i Canals & M. Font i Bernaus, [Eds], Lluís Domènech i Montaner. En el 50^è Aniversari de la seva mort, Barcelona 1973 [no publication details]. Fossier, R. Le travail au Moyen Âge, Paris (Hachette) 2007. Le Moyen Âge, Paris (Armand Colin) 2001. Fossier, R. [Ed.] Seigneurs et seigneuries au Moyen Âge. Actes du 117e congrès national des Sociétés Savantes, Clermont-Ferrand, 1992, Paris (Comité des Travaux Historiques et Scientifiques) 1995. Foucher, M 'La pierre à bâtir sur les chantiers bourguignons: l'évolution des pratiques du choix, du Moyen Âge à l'époque actuelle', in Les temps de la construction. Processus, acteurs, matériaux. Recueil de textes issus du Deuxième congrès francophone d'histoire de la construction, Lyon 29-31 janvier 2014, [Ed] François Fleury, Laurent Baridon, Antonella Mastrorilli, Rémy Mouterde, Nicolas Reveyron, Picard (Paris) 2016. Francastel, P. L'humanisme roman, Paris (Mouton) 1970. The Origins of Peasant Servitude in Medieval Catalonia, Cambridge Freedman, P. (Cambridge University Press) 1991. 'The Enserfment Process in Medieval Catalonia', Viator (13) 1982. 'Peasant Servitude in the Thirteenth Century', Estudi general [5] 1986, Girona (Col.legi universitari de Girona). 'Le pouvoir episcopal en Catalogne au Xe siècle', in Xavier Barral i Altet, La Catalogne et la France méridionale autour de l'an mil, Barcelona (Generalitat de Catalunya) 1991. Freixas i Camps, P. [Ed.] Els 'comacini' i l'arquitectura romanica a Catalunya, Simposi Internacional, Universitat de Girona & Museu Nacional d'Art de Catalunya, novembre 2005, Barcelona (Museu Nacional d'Art de Catalunya) 2010. Freixas i Camps, P. [Ed.] 'A propòsit de l'arquitectura pre-romànic', Revista de Girona [263]1979. Freixas i Camps, P. & Nolla, J.M. 'Els precedents de la catedral gòtica', Annals de l'Institut d'Estudis Gironins [45] 2004. Freixas i Camps, P. & Sureda i Jubany, M. 'La nau única en l'arquitectura medieval catalana. Reflexions sobre la pervivència d'un model constructiu del preromànic al gòtic',

Gaillard, G. 'Les églises de l'ancien évêché d'Égara', Bulletin de la Société nationale des Antiquaries de France, 1961.

Picard) 1907.

Freixe, J.

Annals de l'Institut d'Estudis Gironins (L) 2009.

'La voie romaine du Roussillon et ses embranchements', Congrès archéologique de France (Carcassonne-Perpignan) 1906, Paris (A.

'La Catalogne entre l'art de Cordoue et l'art roman: influences musulmanes sur l'art préroman en Catalogne', *Studia Islamica* (6) 1956.

Premiers essais de sculpture monumentale en Catalogne au X^e et XI^e siècles, Paris (Hartmann) 1938.

'Stone construction and monastic ideals: from Jotsald of Cluny to Peter the Chanter', pp.35-52 in Gallet, Y. [Ed.], Ex quadris lapidus. La pierre et sa mise en oeuvre dans l'arté. Mélanges d'Histoire de l'art offerts à Éliane Vergnolle, Turnhout (Brepols) 2011.

Iron and Steel, London (Longmans) 1969.

Ex quadris lapidus. La pierre et sa mise en oeuvre dans l'art.. Mélanges d'Histoire de l'art offerts à Éliane Vergnolle, Turnhout (Brepols) 2011.

'Archaeology and nationalism: The development of Archaeology in Catalonia in the early twentieth century', Complutum [24:2] 2013. Monjes y obispos en la España del románico: entre la connivencia y el conflicto. Seminario sobre Historia del Monacato, Aquilar de Campoo (Fundacíon Santa Marial la Real) 2013.

Arbussols et Marcevol. Deux villages, une histoire. Saint-Estève, Roussillon (Éditions les Presses Littéraires) 2017.

Église et Société en Occident au Moyen Âge, Aldershot (Variorum) 1984

'Le marbre de Céret (Pyrénées-Orientales): neuf siècles d'extraction et d'emploi en decoration dans l'art roussillonnais', pp.385-97 in Lorenz, J. [Ed.] Carrières et constructions en France et dans les pays limitrophes. Congrès national des Sociétés historiques et scientifiques. Section sciences. Amiens 1994. Paris (Éditions du CTHS) 1996.

The Decline and Fall of the Roman Empire, New York (P.F.Collier & Son) 1900.

Charles the Bald: Court and Kingdom. Colloquium, London, April 1979; Oxford (BAR International Series 101) 1981.

The Cathedral Builders, Wilton, Wilts (Michael Russell) 1983.

Iglesias mozárabes: arte español del siglos IX a XI, 2v. Madrid (Centro de Estudios Historicos) 1919.

'La reconstrucción de Santa María de Ripoll por Martín Sureda y Elías Rogent (1880-1893). Historiografía e ideología en la afirmación del primer románico como *estilo nacional*', *Espacio, Tiempo y Forma. Serie VII: Historia del Arte* [9] 1996.

Early Christianity and Society, London (William Collins) 1977

Études roussillonnaises offertes à Pierre Ponsich: mélange d'archéologie, d'histoire et d'histoire de l'art du Roussillon et de la Cerdagne, Perpignan (Le Publicateur) 1987.

'The Theoretical Attitude towards Space in the Middle Ages', Speculum (21/2) 1946.

Au seuil de l'art roman: l'architecture ottonienne, Paris (Armand Colin) 1958.

Le siècle de l'an mil, Paris (Gallimard) 1973.

'L'analyse des dimensions des édifices médiévaux. Notes de méthode provisoires', *Le renouveau des études romanes en Brionnais-Charolais.*, Sep. 1998, France. halshs-00514949. https://halshs.archives-ouvertes.fr

'Vingt et une petites églises romanes du Mâconnais: irrégularités et métrologie', Actes des congrès de la Société d'archéologie médiévale, 1-5 octobre 1996 (Dijon-Mont Beuvray-Chenôve-Le Creusot-Montbard) Caen (Société d'achéologie médiévale) 1998.

Gajewski, A.

Gale, W. Gallet, Y.

Garcia Alonso, F.

García de Cortázar, J. & Teja, R. [Eds]

Garrigue, J-P.

Gaudemet, J.

Gély, J-P.

Gibbon, E.

Gibson, M & Nelson, J. [Eds.]

Gimpel, J.

Gómez Moreno, M.

González-Varas Ibáñez, I.

Grant, R. Grau, M. [Ed.]

Grinnell, R.

Grodecki, L.

Grodecki, L., Mütherich, H., Taralon, J., & Wormald, F.

Guerreau, A.

Guichard, P.

Guitard, G. et al.

Gunn, T.

Hallam, E. & Everard, J. Halphen, H. Halsall, G.

Hartmann-Virnich, A.

Harvey, J.

Head, T. & Landes, R. [Eds.]

Hearn, M.

Heffernan, T. J. & Matter, E. A. [Eds.]

Heitz, C.

Henriet, J.

Hernández i Cardona, F. [Ed.] Hernández Jiménez, F.

Heyman, J.

'Animation maritime et développement urbain des côtes de l'Europe orientale et du Languedoc au X^e siècle', *Actes de congrès de la Société des historiens médiévistes de l'enseignement supérieur public* [9] Dijon, 1978.

Guide et carte géologique de la France, n° 1095 (Prades), Orléans (BRGM) 1992.

An Inquiry into the origins and influence of Gothic Architecture, London, 1819.

Capetian France, Harlow (Pearson) 2001.

Charlemagne et l'Empire carolingien, Paris (Albin Michel) 1995. Barbarian Migrations and the Roman West, 376-568, Cambridge (Cambridge University Press) 2007.

'Le /Le /Le

Medieval Craftsmen, London (Batsford) 1975.

The Master Builders. Architecture in the Middle Ages, London (Thames & Hudson) 1973.

The Peace of God. Social Violence and Religious Response in France around the year 1000, Ithaca & London (Cornell University Press) 1992.

The architectural theory of Viollet-le-Duc, Cambridge, Mass. (MIT) 1995.

The Liturgy of the Medieval Church, Kalamazoo, Mich. (Medieval Institute Publications) 2005.

'Recherches sur les rapports entre architecture et liturgie à l'époque carolingienne', pp.139-148 in Palazzo, É. [Ed.], *Liturgie et société au Moyen Âge*, Paris (Aubier) 2000.

'Architecture et liturgie en France de l'époque carolingienne à l'an Mil', *Hortus Artium Medievalium* 1995.

'Saint-Michel de Cuxa et la tradition carolingienne', in Fernande & Lombrail 1992.

La France préromane: archéologie et architecture du haut Moyen Âge IV^e siècle à l'an mil, Paris (Éditions Errance) 1987c

'L'architecture religieuse', pp.103-114 in Barral i Altet, X. [Ed.], Le paysage monumental autour de l'an Mil. Colloque international CNRS: Hugues Capet, 987-1987, [Paris (Picard) 1987b.

'Beata Maria Rotunda: À propos de la rotonde occidentale de Saint-Michel de Cuixa', pp.273-277 in Grau, M. [Ed.] Études roussillonnaises offertes à Pierre Ponsich: mélange d'archéologie, d'histoire et d'histoire de l'art du Roussillon et de la Cerdagne, Perpignan (Le Publicateur) 1987a.

'Éléments carolingiens dans l'architecture méditérranéenne', SMC (12) 1981.

L'architecture religieuse carolingienne, Paris (Picard) 1980.

'Architecture et liturgie processionnelle à l'époque préromane', Revue de l'Art [24] 1974.

'Saint-Philibert de Tournus. Histoire – Critique d'authenticité - Étude archéologique du chevet (1009-19)', *BM* [148:3] 1990.

'Saint-Philibert de Tournus. L'oeuvre du second maître, la galilee et la nef', *BM* [150:2] 1992.

Atles d'Historia, Barcelona (Enciclopèdia catalana) 2009.

'San Miguel de Cuixà: iglesia del ciclo mozárabe catalán', *Archivo español de arte y arqueología* [8:23] 1932.

The Stone Skeleton: Structural Engineering of Masonry Architecture, Cambridge (Cambridge University Press) 1995.

Hillenbrand, R.

Hillgarth, J. N.

Hiscock, N.

Hook, D. & Taylor, B. [Eds.]

Hordern, P. & Purcell, N.

Horn, W.

Howe, J. & Wolfe, M.

Hubert, J.

Hubert, J., Porcher, J., & Volbach, W. Hugo, V.

Imamuddin, S. Innes, M.

Iogna-Prat, D., Palazzo, E., & Russo, D [Eds] Iogna-Prat, D. & Zadora-Rio, E.

Izard, V.

Izard, V. & Mut, G.

Jaffrezo, M.

James, D.

James, E. [Ed.] Jandot, C.

Jarrett, J.

Jayyusi, S. K. & Marin, M. [Eds] Jordan, R. Furneaux. "The Ornament of the World". Medieval Córdoba as a Cultural Centre', in Jayyusi, S. K & Marín, M. [Eds], *The Legacy of Muslim Spain*, Leiden (Brill) 1992.

'The classical heritage in Islamic art: the case of medieval architecture', *The Scottish Journal of Religious Studies*, 1986.

'Popular Religion in Visigothic Spain' in E. James [Ed] *Visigothic Spain: New Approaches*, Oxford (OUP) 1980.

The Wise Master Builder: Platonic geometry in plans of medieval abbeys and cathedrals, Aldershot (Ashgate) 2000.

Cultures in Contact in Medieval Spain: historical and literary essays presented to L. P. Harvey, London (King's College London Medieval Studies) 1990.

The Corrupting Sea: A Study of Mediterranean History, Oxford (Blackwell) 1999.

'On the Origins of the Medieval Bay System', Journal of Architectural Historians [17:2] 1958.

'Creating Symbolic Landscape: Medieval Development of Sacred Space', in *Inventing Medieval Landscapes: senses of place in Western Europe*, Gainesville, Fl. (University Press of Florida) 2002. 'L'église Saint-Michel-de-Cuxa et l'occidentation des églises au Moyen Age', *Society of Architectural Historians* [21:4] 1962. *Carolingian Art*, London (Thames & Hudson) 1970.

'Guerre aux démolisseurs', Revue des Deux Mondes (5/1) 1832.

Muslim Spain, 711-1492 AD, Lieden (Brill) 1981.

State and Society in the Early Middle Ages, Cambridge (Cambridge University Press) 2000.

Marie. Le Culte de la Vierge dans la société médiévale, Paris (Beauchesne) 1996

'Formation et transformations des territoires paroissiaux', *Médiévales* (49) 2005.

'La construction des paysages médiévaux. Le rôle fundamental de la sidérurgie dans les mutations socio-économiques et culturelles des VIIIe-XIVe siècles', in M. Martzluff, 2005.

'La fôret au Moyen Âge: enjeux, gestion et mutation d'un espace menacé', in Aymat Catafau [Ed], Les ressources naturelles des Pyrénées du Moyen Âge à l'époque modern. Actes du Congrès international RESOPYR.1, Font Romeu 2002, Perpignan (Presses universitaires de Perpignan) 2005.

'Moines et métallurgie dans la France médiévale', Domitia (8) 2007.

Guide géologique regional: Pyrénées Orientales, Corbières. Orléans (BRGM) 1996.

Early Islamic Spain. The History *of Ibn al Qūṭīya*, London & New York (Routledge) 2009.

Visigothic Spain: New Approaches, Oxford (Clarendon) 1980.

'Le four à chaux de *Les Pedreres* (Bouleternère)', in Olivier Passarrius, Aymat Catafau & Michel Martzluff [Eds], *Archéologie d'une montagne brulée*, Canet-en-Roussillon (Éditions Trabucaire) 2009.

Rulers and Ruled in Frontier Catalonia, Woodbridge (Boydell & Brewer) 2010.

'Power over past and future: Abbess Emma and the nunnery of Sant Joan de les Abadesses', *Early Medieval Europe* (12/3) 2003.

The Legacy of Muslim Spain, Leiden (Brill) 1992.

Western Architecture, New York (Thames & Hudson: World of Art Series) 1969.

Junyent y Subirà, E.

Diplomatari i escrits literari de l'abat-bisbe Oliba, Barcelona (Institut d'Estudis Catalans) 1992.

L'arquitectura religiosa a Catalunya abans del romanic, Montserrat, (Pubicacions de l'abadia de Montserrat) 1983.

Catalunya romànica: l'arquitectura del segle XII Montserrat (Publicacions de l'abadia de Montserrat) 1976

Catalunya romànica: l'arquitectura del segle XI, Montserrat (Publicacions de l'abadia de Montserrat) 1975.

Commemoració mil.lenària del naixement de l'abat-bisbe Oliba, Montserrat (Impremta de Montserrat) 1971a.

'El abad obispo Oliba y Gerona', Revista de Girona 1971b.

'Considérations sur l'architecture catalane de l'art roman', SMC (1) 1971c.

Catalogne romane, Saint-Léger, Yonne (La Pierre-Qui-Vire: Zodiaque) 1968-70.

'Les portes ferriées des Églises', Conflent [216] 1998.

Justafré-Parent, R.

Keay, S.

Kennedy, H. Kimpel, D.

Knoop, D.

Koenigsburger, H. Kosto, A.

Krautheimer, R.

Krinsky, C.

Kubach, H.

Kubach, E. & Elbern, V.

Laborde, A de.

Landers, J. Lara, M.

Lasteyrie du Saillant, R.

Lattin, H. [Ed.]

Laumonier, B. & Laumonier, A.

Lauwers, M.

Roman Spain, London (University of California Publications/British Museum) 1988.

Muslim Spain and Portugal, London (Longman) 1996.

'Structures et evolution des chantiers médiévaux' in Francesco Aceto et al., *Chantiers médiévaux*, Saint-Léger-Vauban (Zodiaque) 1996.

The Medieval Mason: an Economic History of English stone building in the later Middle Ages and Early Modern times, Manchester (Manchester University Press) 1949.

Medieval Europe, 500-1400, Harlow (Longman) 1987.

Making agreements in Medieval Catalonia: power, order and the written word, 1000-1200, Cambridge (Cambridge University Press) 2001.

'The Liber feudorum maior of the counts of Barcelona: the cartulary as an expression of power', Journal of Medieval History [27:1] 2001.

Early Christian and Byzantine Architecture, Harmondsworth (Penguin) 1979.

Studies in Early Christian, Medieval and Renaissance Art, London & New York (New York University Press) 1969.

'The Carolingian Revival of Early Christian Architecture', *Art Bulletin* (24/1) 1942.

'Romanesque Architecture and some 18th Century Critics', *Gesta* (1/2) 1964.

Romanesque Architecture, New York (Harry N. Abrams, Inc.) 1975. L'art de l'Empire au début du Moyen Âge, Paris (Albin Michel) 1973.

Les Monumens de la France classés chronologiquement et considérés sous le rapport des faits historiques et de l'étude des arts, Paris (P Didot) 1816.

The Field and the Forge, Oxford (Oxford University Press) 2003. Historia d'España, Barcelona (Editorial Labor) 1982.

L'architecture religieuse en France à l'époque romane, Paris Auguste Picard) 1929.

The letters of Gerbert, New York (Columbia University Press) 1961 'Geologie et Art Roman: pierres romanes du Conflent (Pyrénées-Orientales)', in Roches ornées, roches dréssées, [Ed] M Martzluff, Perpignan (Presses Universitaires de Perpignan) 2005.

'Exigèse, images et structuration des complexes monastiques dans l'occident medieval (IX^e – XII^e siècle)', in Lauwers, M. [Ed],

Monastères et espace social. Genèse et transformation d'un système de lieux dans l'occident medieval, Collection d'Études médiévales de Nice, v.15, Turnhout (Brepols) 2014.

'Paroisse, paroissiens et territoire. Remarques sur *parochial* dans les textes latins du Moyen Âge', *Médiévales* (49) 2005.

'Franchise architecturale dans l'art roman. Matériaux, Formes et Construction', *SMC* (I) 1970.

'La fabrication de la chaux: une activité pérenne ou occasionnelle pendant l'Antiquité gallo-romaine?' pp.453-84 in Pierre Pétrequin, Philippe Fluzin, Jacques Thiriot & Paul Benoit [Eds], Arts du fer et productions artisanales, XXe Rencontres internationals d'archéologie et d'histoire d'Antibes, 21-23 octobre 1999, Antibes (Éditions APDCA) 2000.

Carrières et constructions en France et dans les pays limitrophes. Congrès national des Sociétés historiques et scientifiques. Section sciences. Amiens 1994. Paris (Éditions du CTHS) 1996.

'The Public Law of the Visigothic Code', Speculum (26/1) 1951.

Time, Work and Culture in the Middle Ages, Chicago & London (Chicago University Press) 1980

La royauté et les élites dans l'Europe carolingienne, Lille (Université Charles de Gaulle/Lille 3) 1998.

La France médiévale, Paris (Armand Colin) 2000.

De l'architecture byzantine, Paris, 1840.

'L'église Sainte-Marie-de-Riquer à Cattlar et ses décors peints extérieurs', *SMC* [45] 2014.

Medieval Society in Southern France and Catalonia, London (Variorum Reprints) 1984.

The Development of Southern French and Catalan Society, 718-1050, Austin, Texas (University of Texas Press) 1965.

'Cataluña como frontera militar (870-1050)', Anuario de Estudios Medievales [5] 1968.

Communication and Power in Medieval Europe: the Gregorian Revolution and Beyond, London (Hambledon Press) 1994

Louis Courajod. Leçons professées à l'école du Louvre (1887-1896), Paris (École du Louvre) 1899-1903.

The Origins of Spain and Portugal, London (George Allen & Unwin) 1971.

A History of the Church in the Middle Ages, London (Routledge) 2013.

'Els comacini i l'arquitectura romànica a Catalunya', Simposi international, Universitat de Girona/Museu National d'Art de Catalunya, 2005. Barcelona (Museu Nacional d'Art de Catalunya) 2010.

Chrónica mozárabe de 754, Zaragoza (Anubar) 1980.

Carrières et constructions en France et dans les pays limitrophes. Congrès national des Sociétés historiques et scientifiques. Section sciences. Amiens 1994. Paris (Éditions du CTHS) 1996.

'La promoción artística d'abades-obispos en monasterios románicos de Cataluña: algunas notas a propósitio de Sant Cugat des Valles y de Saint Miguel de Cuixà', in García & Teja 2013.

'Edificis del segle XI al marge de la influència lombarda: Sant Pere de Rodes i la seva repercussió a Sant Andreu de Sureda', Simposi Internacional. Els comacini i l'arquitectura romànica a Catalunya, Barcelona, 25-26 November, 2005. Barcelona (Museu Nacional d'Art de Catalunya) 2010.

'La sculpture de Saint-Michel de Cuxa à l'époque de l'abbé Oliba', *SMC* [38] 2007.

Lavagne, P.

Lavergne, D. & Suméra, F.

Lear, F. Le Goff, J.

Lejan, R [Ed]

Lemarignier, J-F. Lenoir, A-A. Leturque, A.

Lewis, A.

Leyser, K.

Limmonier, H. & Michel, A.

Livermore, H.

Logan, F.

Lomartire, S.

López Pereira, J. Lorenz, J. [Ed.]

Lorés Otzet, I.

'L'église de Sant Pere de Rodes. Un exemple de 'renaissance' de l'architecture du XI^e siècle en Catalogne', *SMC* (XXXII) 2001.

'L'arquitectura monàstica preromànica i les seves relacions amb Europa: Sant Miquel de Cuixà', in *Història, Art i Cultura de la Tarraconense mediterrània entre els segles IV i X*, Barcelona (Enciclopèdia Catalana) 1999a.

'Sant Pere de Rodes', in *Enciclopedia dell'Arte Medievale*, Rome (Instituto della Enciclopedia Italiana) 1999b.

'Sant Pere de Rodes. Consideracions sobre la cronologia de l'església', Actes del Congrés Internacional. Gerbert d'Orlhac i el seu temps: Catalunya i Europa a la fi del 1r mil.lenni. Vic-Ripoll, 10-13 November, 1999c.

'Els promotors en l'art català del segle X', Catalunya a l'època carolingia. Art i culture abans del romànic (segles IX i X), Barcelona (Museu National d'Art de Catalunya) 1999d.

'The Artisans behind Visigothic Buildings: the Materiality of Identity, *Visigothic Symposia* [2] 2017-18, https://visigothicsymposia.org.

'Late Antique and Early Medieval Hispanic Churches and the Archaeology of Architecture: Revisions and Reinterpretations of Constructions, Chronologies and Contexts', *Medieval Archaeology* (54) 2010.

'Archaeology of the Hispanic churches of the 10th century: the circulation of architectural and decorative models', *The European Archaeologist* [48] 2016.

'A finales del siglo IX e inicios del X. Entre asturianos y mozárabes', Anejos de AEspA [LXIII] 2012.

'Les origins enigmatiques du cloître de Saint-Michel de Cuixa', pp.255-59 in Grau, M. [Ed.] Études roussillonnaises offertes à Pierre Ponsich: mélange d'archéologie, d'histoire et d'histoire de l'art du Roussillon et de la Cerdagne, Perpignan (Le Publicateur) 1987.

'The Pilgrimage Roads Revisited', Gesta (8/2) 1969.

'Format and Style', *Artistes, artisans et production artistique...*X Barral i Altet [Ed.], 1983.

Brickwork. History, Technology and Practice, 2V London (Donhead Publications) 1994.

'The Myth of the Mix', Building Conservation Directory, Cathedral Communications Limited @ www.buildingconservation

The Architecture of the Roman Empire, New Haven & London (Yale University Press) 1965.

Entre histoire et épopée. Les Guillaume d'Orange (IX^e-XIII^e siècle), Toulouse (CNRS-Université Toulouse II-Le Mirail) 2006.

Spain in the Middle Ages: from frontier to empire, 1000-1500, Basingstoke (Palgrave MacMillan) 1977.

'The People and Public Opinion in the 11th century Peace Movement', *Speculum* (5/2) 1930.

'Pre-Gothic Architecture: A Mirror of the Social-Religious Renaissance of the 11th century', *Speculum* (2/1) 1927.

Christianizing the Roman Empire AD100-400, New Haven (Yale University Press) 1984.

La société laïque et l'église dans la province ecclésiastique de Narbonne de la fin du VIIIe à la fin du XIe siècle. Toulouse (Presses de l'Université de Toulouse-Le Mirail) 1974.

L'art allemand et l'art français du Moyen Âge, Paris (Armand Colin) 1922.

Los Angeles Utrero Agudo, M de.

Lyman, T.

Lynch, G.

MacDonald, W. L.

Macé, L. [Ed.].

Mackay, A.

MacKinney, L.

MacMullen, R.

Magnou-Nortier, E.

Mâle, E.

Mallet, G.

Mallion, J.

Man, J. Mann, J.

Manzano Moreno, E.

Marcet i Juncosa, A.

Mark, R. [Ed.]

Martinelli, B.

Martinez, C. et Rossignol, N.

Martínez Enamorado, V.

Martzluff, M.

Martzluff, M. [Ed.]

Martzluff, M. & Giresse, P.

Mathian, N.

Mathison, R. & Hagith S,

Mazal, F.

McClendon, C.

McKenna, S.

L'art religieux du XII^e siècle: étude sur les origins de l'iconographie du Moyen Âge, Paris (Armand Colin) 1940.

Églises romanes oubliées du Roussillon, Montpellier (Presses du Languedoc) 2003.

Les cloîtres démontés de Perpignan et du Roussillon (XII^e-XIV^esiècle), Perpignan (Archives communales de Perpignan) 2000.

'De l'usage des marbres en Roussillon entre le XI^e et le XIV^e siècle: la sculpture monumentale', *Patrimoines du Sud* [4] 2016.

'De Catalogne en Languedoc méditerranéen: questions sur les remplois en marbre blanc à travers les exemples roussillonais', *Hortus Artium Medievalium* [17] 2011.

Victor Hugo et l'art architectural, Paris (Presses universitaires de France) 1962.

Atlas de l'an mil, Paris (Flammarion/Éditions Autrement) 2000. 'Romantic Identity, Nationalism and the Understanding of the Advent of Romanesque Art in Christian Spain', Gesta [36/2] 1997.

'The Creation of a Medieval Frontier: Islam and Christianity in the Iberian Peninsula, Eighth to Eleventh Centuries', in *Frontiers in Question*, D Power & N Standen [Eds], 1999.

Abrégé d'histoire des terres catalanes du Nord, Canet, Roussillon (Éditions Trabucaire) 2009.

Architectural technology up to the scientific revolution: the art and structure of large-scale buildings, Cambridge, Mass; London (MIT) 1993.

L'intérrogation du style. Anthropologie, technique et esthétique, Aix-en-Provence (Publications de l'Université de Provence) 2005.

'Le peuplement du Roussillon, du Conflent et du Vallespir aux IX^e et X^e siècles', *Annales du Midi* (87) 1975.

Ibn Hayyan, el abanderado de la historia de Al-Ándalus, Madrid (Consejo Superior de Investigaciones Científicas) 2008.

'Des pierres pour bâtir. Exploitation traditionnelle du substrat mineral depuis le Moyen Âge aux marges de la plaine de Roussillon (montagne de Rodès, Bouleternère et Ille-sur-Têt)', pp.299-342 in Passarius, O. et al. [Eds.], Archéologie d'une montagne brûlée, Canet en Roussillon (Éditions Trabucaire/Conseil general des Pyrénées Orientales) 2009.

Roches ornées, roches dréssées. Aux source des arts et des mythes. Les hommes et leur terre en Pyrénées de l'Est. Actes du colloque en hommage à Jean Abélanet, Perpignan (Presses universitaires de Perpignan) 2005.

'Une carrier de marbre en Roussillon', in Archéologie d'une montagne brûlée, [Eds] O Passarius, A Catafau, M Martzluff, 2009.
"L'Archéologie monumentale", prémice d'une histoire de l'architecture', in L'architecture, les sciences et la culture de l'histoire au XIX^e siècle: X^e Entretiens Jacques Cartier, Saint-Étienne, décembre 1997, Saint-Étienne (Publications de l'Université de Saint-Étienne) 2001.

'Forging a New Identity: the Kingdom of Toulouse and the Frontiers of Visigothic Aquitania (418-507)', in *The Visigoths: Studies in Culture and Society*, [Ed] Alberto Ferreiro, 1999.

L'espace du diocèse: genèse d'un territoire dans l'Occident médiéval (V°-XVIII° siècles), Rennes (Presses universitaires de Rennes) 2008. The Origins of Medieval Architecture, New Haven (Yale University Press) 2005.

Paganism and Pagan Survivals in Spain up to the Fall of the Visigothic Kingdom, The Library of Iberian Resources Online, www.curriki.org/oer/LIBRO

McKitterick, R. The Frankish Kings and Culture in the Early Middle Ages, Aldershot

(Variorum) 1995

McNeil, T Faith, Pride and Works: Medieval Church Building, Stroud (Tempus

Publishing) 2006.

Mérimée, P. Notes sur un voyage en Corse, Paris (Fournier) 1840.

Notes sur un voyage en Auvergne, Paris (Fournier) 1938.

Notes sur un voyage dans l'ouest de la France, Paris (Fournier) 1936. Notes sur un voyage dans le midi de la France, Paris (Fournier) 1835.

I maestri comacini: storia artistica de mille duecento anni (600-

1800), Milan (Agnelli) 1893.

Middleton, J. World Monarchies and Dynasties, London & New York (Routledge)

2015.

Millin, A. Antiquités nationales ou Recueil de monumens pour servir à

l'histoire générale et particulière de l'empire françois...(5 V), Paris

(Drouhin) 1790-98.

Mirabella Roberti, M. 'L'arc en trou de serrure de l'Adriatique aux Pyrénées', SMC (19)

1988.

Montaner, I. & Girbau, L

Merzario, G.

Mouterde, R. & Reveyron, N. [Eds.]

Domènech i Montaner, Barcelona (Ediciones Polígrafa) 1994. Recueil de textes issus du Deuxième congrès francophone

d'histoire de la construction, Lyon 29-31 janvier 2014, Paris (Picard)

Moxo, S de. Repoblacion y sociedad en la España Cristiana medieval, Madrid

(Ediciones Rialp) 1979.

Mundo, A. 'Recherches sur le traité du moine Garsias à l'abbé-évèque Oliba sur

Cuixa', SMC (I) 1971.

'Les changements liturgiques en Septimanie et en Catalogne

pendant la période préromane', SMC (2) 1972.

'Moissac, Cluny et les mouvements monastiques de l'Est des Pyrénées du Xe au XIIe siècle', Actes du colloque international de

Moissac, 3-5 mai 1963), Annales du Midi [64] 1963.

Munteaunu, G., Tămas, C., Cauuet, B.

& Mut, G.

'Vestiges de l'exploitation du fer aux époques pré romaine et romaine dans le district minier de Baillestavy (Pyrénées-Orientales,

France)', Treballs d'Arqueologia [21] 2017.

Murray, P. & Murray, L. The Oxford Companion to Christian Art and Architecture, Oxford

(Oxford University Press) 1998.

Mut, G., Pineda, J. & Siret, A. Mines et Fonderies Antiques et Médièvales du Canigou, Master's

Thesis, Université de Toulouse –Le Mirail, 1985.

Nadal Farreira, J. & Woolf, P.

Nayrolles, J.

Histoire de la Catalogne, Toulouse (Privat) 1982.

L'invention de l'art roman à l'époque modern XVIII^e-XIX^e siècles,

Rennes (Presses universitaires de Rennes) 2005.

'Sciences naturelles et archéologie médiévale au XIX^e siècle', in L'architecture, les sciences et la culture de l'histoire au XIX^e siècle: X^e Entretiens Jacques Cartier, Saint-Étienne, décembre 1997, Saint Étienne (Publications de l'Université de Saint-Étienne) 2001.

Nodier, C., Taylor, J. & Cailleux, A de.

Voyages pittoresques et romantiques dans l'ancienne France, Paris, 1820 onwards (various editions).

O'Callaghan, J.F.

Reconquest and Crusade in Medieval Spain, Philadelphia (University of Pennsylvania Press) 2003.

O'Neill, J.P. [Ed.],

The Art of Medieval Spain, AD 500-1200, New York (Metropolitan Museum of Art/Harry N. Abrams) 1993.

Ordeig i Mata, R.

'La documentació del monestir de Cuixà referent a Oliba i als anys del seu abadiat', SMC [40] 2009.

Les dotalies de les esglésies de Catalunya, 6v. Vic (Estudis històrics) 1996.

Oursel, R.

Burgogne romane, La-Pierre-qui-Vire, Yonne (Zodiaque) 1968. Invention de l'architecture romane, La Pierre-qui-Vire, Yonne (Zodiaque) 1970.

Romanesque Architecture, London (Oldbourne) 1967.

Pacaut, M. Pacey, A. Palazzo, E. L'ordre de Cluny, Paris (Fayard) 1986.

Medieval Architectural Drawing, Stroud (Tempus) 2007. *Liturgie et société au Moyen Âge*, Paris (Aubier) 2000.

'Marie et l'élaboration d'un espace ecclesial au haut Moyen Âge', in L'innovation technique au Moyen Âge. Actes du VI^e Congrès International d'archéologie médiévale, [Ed] Patrice Beck, Paris (Éditions Errance) 1998.

Palazzo-Bertholon, B.

'Traitements et apparences des surfaces murals autour de l'an mil. Joints, enduits et polychromies', in É Vergnolle & S Bully [Eds], *Le* <*premier art roman> cent ans après*, 2012.

'L'étude des mortiers de l'abbaye de Saint-Gilles-du-Gard', *BM* [171:4] 2013.

'Ripoll i Roma', Revista de Girona 1978.

'Architecture as Liturgical Setting', in *The Liturgy of the Medieval Church*, [Ed] Thomas J. Heffernan & E. Ann Matter, Kalamazoo, Mich. (Medieval Institute Publications) 2005.

'Les relacions entre la poder laic i eclesiàstic durant el bisbat de Sant Ermengol d'Urgell', <u>www.academia.edu/20076414</u>.

Stone: quarrying and building in England, AD43-1525, London (Phillimore/Royal Archaeological Institute) 1990.

Archéologie d'une montagne brûlée, Canet en Roussillon (Éditions Trabucaire/Conseil general des Pyrénées Orientales) 2009.

Une histoire symbolique du Moyen Âge occidental, Paris (Seuil) 2004.

'The Beginnings of Gothic Architecture in Languedoc', *Art Bulletin* [70:1] 1988.

Pour en finir avec le Moyen Âge, Paris (Seuil) 1977.

Dictionary of Islamic Architecture, London (Routledge) 1999.

Arts du fer et productions artisanales, XXe Rencontres

internationals d'archéologie et d'histoire d'Antibes, 21-23 octobre 1999, Antibes (Éditions APDCA) 2000.

'The Term "Architect" in the Middle Ages', Speculum (17/4) 1942

A Concise History of Spain, Cambridge (CUP) 2010.

Arte románico, Madrid (Espasa Calpe) 1995.

Mohamet et Charlemagne, Paris (Presses universitaires de France) 1970.

Els monestirs Catalans, Barcelona (Edicions Destino) 1968.

'Arnulf, abat de Ripoll i bisbe de Girona', *Revista de Girona* 1978. *Catalunya romànica*, 27v. Barcelona (Enciclopèdia Catalana) 1984-*Presence de l'Au-delà. Une vision medieval du monde.* Villeneuve d'Ascq (Presses Universitaires du Septentrion) 2004.

Eugène Viollet-le-Duc, Paris (Éditions A & J Picard) 2014.

'Josep Puig i Cadafalch (1867-1956) et Saint-Michel de Cuxa', SMC (49) 2018.

'L'église Saint-Michel de Cuxa de Garin à Oliba', in *Le <premier art roman> cent ans après*, É Vergnolle & S Bully [Eds], 2012.

'La <carrera francesca> de Josep Puig i Cadafalch', in 1907: el paper de l'IEC en la història de l'art i en la restauració de monuments medieval a Catalunya i Europa. Commemoració del centenari de l'Institut d'Estudis Catalans, Barcelona (Diputació de Barcelona) 2009.

Palol, P de. Parker, E. C.

Parra, J.

Parsons, D.

Passarius, O., Catafau, A. & Martzluff, M. [Eds.] Pastoureau, M.

Paul, V.

Pernoud, R. Petersen, A.

Pétrequin, P., Fluzin, F., Thiriot, J. & Benoît, P. [Eds.]

Pevsner, N.

Phillips, W.D. & C.R.

Pijoan, J. Pirenne, H.

Pladevall, A. & Català Roca, F. Pladevall i Font, A. Pladevall i Font, A. [Dir.], Platelle, H.

Poisson, G. & Poisson, O. Poisson, O.

'Les collégiales augustines du Conflent et du Roussillon et l'architecture des *ateliers roussillonnais* du XII^e siècle', *SMC* (25) 1994.

'Arbussols, l'église Nostra-Senyora-de-las-Grades-de-Marcevol', https://sauvegardeartfrancais.fr. (undated).

'Roussillonnais, Cerdans et Catalans du haut Moyen-Âge sur les routes des grands pèlerinages', SMC (31) 2000a.

'Wifred le Velu et ses frères', *Annals del Centre d'Estudis Comarcals de Ripollès*, 2000b.

'Origine et formation des paroisses et des églises rurales au diocèse d'Elne', *SMC* (XXX) 1999.

'L'art de bâtir en Roussillon et en Cerdagne du IX^e au XIII^e siècle', *SMC* (26) 1995.

'La société et l'art en Roussillon à l'époque carolingienne', *SMC* (23) 1992.

'Saint-Michel de Cuxa au Siècle de l'an mil (950-1050). 2^e partie: après l'an mil', *SMC* (20) 1989.

'Saint-Michel de Cuxa au Siècle de l'an mil (950-1050). 1^e partie: avant l'an mil', *SMC* (19) 1988.

'L'architecture religieuse préromane des pays de Roussillon, Conflent, Vallespir et Fenolledes', *SMC* (14) 1983.

'La pensée symbolique et les édifices de Cuxa, du X^e au XII^e siècle', *SMC* (12) 1981.

'Limits històrics i repertori toponímic dels llocs habitats dels antics <Països> de Rosselló-Vallespir-Conflent-Capcir-Cerdanya-Fenolledès', *Terra Nostra* (Revue catalane scolaire) [37] Prades 1980.

'L'évolution du portail d'église en Roussillon du IX^e au XIV^e siècle', *SMC* [8] 1977.

'Chronologie et typologie des cloîtres romans roussillonnais', *SMC* [7] 1976.

'Évolution de l'architecture romane roussillonnaise des origines au XIII^e siècle', *SMC* [6] 1975.

'Le Maître de Saint-Martin de Fenollar', SMC [5] 1974.

'L'évolution de l'architecture romane en Roussillon au XII^e siècle', *SMC* (4) 1973.

'L'architecture préromane de Saint-Michel de Cuxa et sa veritable signification', *SMC* (2) 1971.

'Le Roussillon: cadre géographique. Aperçu historique. Saint-Michel de Cuxa, du IX^e au XII^e siècles', *SMC* (1) 1970.

'L'église Saint-Vincent d'Eus', Études roussillonnaises [3-4] 1954-55 'Le domaine foncier de Saint-Michel de Cuxa', Études roussillonnaises [1-2] 1952a

'Les problèmes de Saint-Michel de Cuxa d'après les textes et les fouilles', *Études roussillonnaises* [1-2] 1952b.

'Le Conflent et ses comtes du IX^e au XII^e siècle', *Études roussillonnaises* [3-4] 1951.

'Les deux églises mozarabes de Sournia (Pyr. Or.)', *Anales y Boletin de los Museos de Arte de Barcelona*, v.4, nos.3&4, 1948.

Catalunya carolingia, Barcelona (Institut d'Estudis Catalans) 2006
The Sculpture of the Pilgrimage Roads, New York (Hacker Art Books)
1985.

'Spain or Toulouse? And Other Questions', *Art Bulletin* (7/1) 1924 *Lombard Architecture*, 3v. New Haven (Yale University Press) 1916-17.

Postan, M; Coleman, D; Matthias, P [Eds.]

Ponsich, P. & Ordeig i Mata, R. [Eds.].

Cambridge Economic History of Europe (II), Cambridge (Cambridge University Press) 1987.

Porter, A. K.

Ponsich, P.

Pous, A de

Power, D. & Standen, N. [Eds.]

Pressouyre, L.

Prigent, D.

Provost, M.

Puertas Tricas, R.

Puig Griessenberger, A. M. & Mataró i Pladelasala, M. Puig i Cadafalch, J. Les tours à signaux, Perpignan (Éditions Conflent) 1980.

Frontiers in Question: Eurasian Borderlands, 700-1700, London (MacMillan) 1999.

'Monastic Ideals and Iconographic Programs in the Cloister', *Gesta* (12/1) 1973.

'Le petit appareil: methods d'analyse et premiers résultats. L'exemple du Val de Loire', in Vergnolle & Bully, 2012.

'Réflexions sur l'emploi du petit appareil dans l'architecture religieuse des anciens dioceses de Bordeaux et Bazas au XI^e et au début du XII^e siècle', in Baridon, L. et al. [Eds.] Les temps de la construction. Processus, acteurs, matériaux. Recueil de textes issus du Deuxième congrès francophone d'histoire de la construction, Lyon 29-31 janvier 2014. Lyon (École national supérieur d'architecture de Lyon) 2014.

Iglesias hispánicas (siglos IV al VIII), Madrid (Ministerio de Educación y Ciencia) 1975.

'La cel.la abans el monestir: Sant Pere de Rodes als segles VIII i IX', Annals de l'Institut d'Estudis Empordanesos [43] 2012.

L'art wisigothique et ses survivances, Paris (F de Nobele) 1961.

Noves descobertes a la catedral d'Egara: la catedral primitive; la catedral visigòtica; les pintures de la segona catedral, Barcelona (Institut d'Estudis Catalans) 1948.

'La cathédrale et le baptistère d'Égara (Catalogne)', *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* [91:3] 1947.

'La frontière septentrionale de l'art mozarabe', Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres [87:3] 1943. 'Le prototype romain des voûtes romanes primitives', Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres, [77:1] 1933.

La geografia i els orígens del primer art romànic, Barcelona (Institut d'Estudis Catalans) 1930.

Le premier art roman. L'architecture en Catalogne et dans l'Occident méditerranéen aux XI^e et XII^e siècles, Paris (Henri Laurens) 1928a.

'La géographie générale et la chronologie du premier art roman', Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres [72:1] 1928b.

'Decorative Forms of the First Romanesque Style, *Art Studies* [4] 1926.

'Les Iglesies romàniques ab cobertes de fusta de les valls de Bohí i d'Aran', *Anuari de l'Institut d'Estudis Catalans*, 1908.

'Les influences lombardes en Catalogne', *Congrès archéologique de France (Carcassonne/Perpignan) 1907*, Paris (A. Picard) 1907.

L'arquitectura romànica a Catalunya, Barcelona (Institut d'Estudis Catalans) 1983 (facsimile of editions 1909-17).

'L'église Saint-Michel de Cuxa', *Bulletin monumental* [94:3] 1935. *La farga catalana al Vallespir*, Perpignan (Edicions Trabucaire) 2012.

'Liber feudorum ceritaniæ: Cerdanya mil anys enrere', Revista Cultural de Cerdanya, 2012.

Mélanges d'archéologie et d'histoire: archéologie du Moyen Âge, Paris (Alphonse Picard) 1886.

'De l'architecture romane: classification des espèces', *Revue archéologique* [9:2] 1852.

Puig i Cadafalch, J., Falgueray Silva, A de., & Goday y Casals, J.

Puig i Cadafalch, J. & Gaillard, G.

Puig i Moreno, G.

Punsola i Munarriz, M.

Quicherat, J-E.

'De l'ogive et de l'architecture dite ogivale', Revue archéologique, [7:1] 1850.

Radding, C. & Clark, W.

Medieval architecture, medieval learning: builders and masters in the age of Romanesque and Gothic, New Haven; London (Yale University Press) 1992.

Rat, P.

Raitt, A Prosper Mérimée, London (Eyre & Spottiswoode) 1970. 'Les grès dans les constructions de Bourgogne là où règnent les calcaires (de l'époque romaine au XXe siècle), in Carrières et constructions en France et dans les pays limitrophes. Congrès national des Sociétés historiques et scientifiques. Section sciences. Amiens 1994. Paris (Éditions du CTHS) 1996.

Rauwel, A.

'Circulations liturgiques, circulations devotes dans l'espace abbatiale: autour de Guillaume de Dijon', in Monastères et espace social. Genèse et transformation d'un système de lieux dans l'occident medieval, Collection d'Études médiévales de Nice, v.15, [Ed] Lauwers, M., Turnhout (Brepols) 2014.

Réau, L.

Histoire du vandalisme: les monuments détruits de l'art français, Paris (Robert Lafont) 1994.

Iconographie de l'art chrétien, Paris (Presses universitaires de France) 1955-59.

Le premier Moyen Âge à Ruscino (Château-Roussillon, Perpignan, Pyrénées-Orientales): Entre Septimanie et al-Andalus (VIIe-IXe siècles). Hommage à Rémy Marichal, Lattes (Édition de l'Association pour le Développement de l'Archéologie en Languedoc-Roussillon) 2014a.

'Ruscino au cours du premier Moyen Âge: un nouvel éclairage', in Rébé, I; Raynaud, C; Sénac, P [Ed], Le premier Moyen Âge à Ruscino (Château-Roussillon, Perpignan, Pyrénées-Orientales): Entre Septimanie et al-Andalus (VII^e-IX^e siècles). Hommage à Rémy Marichal, Lattes (Édition de l'Association pour le Développement de l'Archéologie en Languedoc-Roussillon) 2014b.

À quoi sert l'histoire de l'art ? Paris (Textuel) 2006.

'La circulation des artistes, des oeuvres, des modèles dans l'Europe médiévale', Revue de l'art (120) 1998.

'Structural Rationalism and the case of Sant Vicenç de Cardona',

Architectural History (43) 2000. The Contest of Christian and Muslim Spain, 1031-1157, Oxford,

Cambridge Massachusetts (Blackwell Publishers) 1992 'Des maisons en terre médiévales sur un îlot du quartier Saint-

à Perpignan (Pyrénées Orientales)', Archéologie du Midi medieval [27] 2009.

Genèse et transformation d'un système de lieux dans l'occident medieval, Collection d'Études médiévales de Nice, v.15, Lauwers, M. [Ed.], Turnhout (Brepols) 2014.

L'art roman, Paris (Le Cavalier Bleu) 2008.

'Réflexions sur la place des savoir-faire dans la perception de beau architectural', Siècles (Revue du Centre d'histoire <Espaces et Cultures>) [22] 2005.

'Technologie médiévale et archéologie d'élévation', Archéologie médiévale (27) 1997.http://journals.openedition.org/siecles/1884. 'Morphogenèse de l'espace monastique au Moyen Âge: le role des héritages et des contraintes', in Monastères et espace social. 'L'apport de l'archéologie du bâti dans la monographie d'architecture', In situ [2] France: Ministère de la culture. http://insitu.revues.org/1200.

Rébé, I., Raynaud, C., & Sénac, P. [Eds.]

Recht, R

Reed, P.

Reilly, B. F.

Rémy, I., de Chazelles, C-A., Catafau A. & Mathieu Alessandri, P.

Reveyron, N.

Reveyron, N. & Rouchon Mouilleron, V.

L'ABCdaire de l'Art roman, Paris (Flammarion) 2000.

Reynal, J. L'art de séduire, ou le pari augustan', in Études roussillonnaises offertes à Pierre Ponsich, M Grau [Ed], 1987. Reynaud, L. Traité d'architecture, Paris (Victor Dalmont) 1858. Reynolds, R. 'At Sixes and Sevens - and Eights and Nines: the Sacred Mathematics', Speculum (54/4) 1979. Ribull, J. G. 'Del Conflent a la conca d'Òdena. La família del veguer Sal.la dins el marc de l'expansió del comtat d'Osona-Manresa al segle X', Miscellanea Aqualatensia [16] 2015. Storia dell'architettura in Italia dal secolo IV al XVIII, 3v. Modena Ricco, A. 1857-59. Riché, P. [Ed.] L'Europe de l'an mil, Saint-Léger-Vauban (Zodiaque) 2001 Les Carolingiens. Une famille qui fit l'Europe, Paris (Hachette) Rickman, T. An Attempt to discriminate the Styles of Architecture in England, from the Conquest to the Reformation, London, 1817. Ripoll López, G 'The Transformation and Process of Acculturation in Late Antique Hispania: Select Aspects from Urban and Rural Archaeological Documentation', in The Visigoths, [Ed] Alberto Ferreiro, 1999. Riu, M. & Valdepeñas, P. 'El espacio eclesiastico y la formación de las parroquias en la Cataluña de los siglos IX al XII', L'environnement des églises et la topographie religieuse des campagnes médiévales. Actes du congrès international d'archéologie médiévale (Aix-en-Provence, 28-30 septembre 1989), Caen (Société d'Archéologie Médiévale) Rivet, A. Gallia Narbonensis, London (Batsford) 1988. Rivoira, G. Lombardic Architecture: its Origin, Development and Derivatives, London (William Heinemann) 1910 (Amazon facsimile). Rodley, L. Byzantine Art and Architecture: An Introduction, Cambridge (Cambridge University Press) 1994. Rouger, E. 'Du principe d'analyse stratigraphique à l'archéologie d'élévation', Archéologie médiévale (28) 1998 Rudolph, C. [Ed.] A Companion to Medieval Art: Romanesque and Gothic in Northern Europe, Oxford (Blackwell Publishing) 2006.

Saalman, H. *Medieval Architecture: European Architecture 600-1200*, London (Studio Vista) 1968.

Sabaté, F. 'The Catalonia of the 10th to 12th centuries and the historiographic definition of feudalism', *Catalan Historical Review* [3] 2010.

'La montagne dans la Catalogne médiévale. Perception et pouvoir', Actes des congrès de la Société des historiens médiévistes de l'enseignement supérieur public [34] Chambéry, 2003.

Sacchi, G. & D. Antichità romantiche d'Italia, Milan 1828-29.

2019.

Sagnes, J.

Salet, F.

Salrach, J.M.

Sancho i Planas, M.

Sales Carbonell, J. & Salazar Ortiz, N.

Le Pays Catalan, 2v., Pau (Société Nouvelle d'Éditions Régionales et de Diffusion) 1983.

'The pre-Pyrenees of Lleida in Late Antiquity: Christianisation processes of a landscape in the *Tarraconensis'*, *Revista d'Arqueologia de Ponent* (University of Lleida) [23] 2013.

'L'église de Saint-Vincent d'Eus (Pyrénées Orientales', BM (114/3)

'El temps d'Oliba, Abat de Ripoll i de Cuixà (1008-1046) i Bisbe de Vic (1018-1046)', *Querol. Revista de cultura de Cerdanya* [24]

'Production du fer au Moyen Âge: les forges au sud des Pyrénées catalanes', pp.73-86 in Pierre Pétrequin, Philippe Fluzin, Jacques Thiriot & Paul Benoît [Eds], Arts du fer et productions artisanales, XXe Rencontres internationals d'archéologie et d'histoire d'Antibes, 21-23 octobre 1999, Antibes (Éditions APDCA) 2000.

Sandron, D.

'Les chantiers de construction des églises romanes', BM (153/4)

Sapin, C.

'La pierre et le voûtement, innovation dans les techniques de construction des églises en Bourgogne au XIe siècle', L'innovation technique au Moyen Âge. Actes du VI^e Congrès International 1998 'L'origine des rotondes mariales du IX^e – XI^e siècle et le cas de Saint-Germain d'Auxerre' in Marie. Le Culte de la Vierge dans la société médiévale, [Ed] logna-Prat, D; Palazzo, E; Russo, D [Eds] Paris (Beauchesne) 1996.

Sapin, C. [Ed]

Enduits et Mortiers. Archéologie médiévale et moderne, Paris

(CRNS) 1991.

Sautel, J.

'Les nouvelles découvertes de la cathédrale Notre-Dame,

à Vaison-la-Romaine', Comptes rendus des séances de l'Académie

des Inscriptions et Belles-Lettres [93-94] 1949.

Saxer, V.

'Les paroisses rurales de France avant le IX^e siècle', SMC (XXX)

1999.

Sear, F.

Shapiro, M.

Simpson, F.

Sobreques i Callico, J.

Shelby, L.

Roman Architecture, London (Batsford) 1989.

Séroux d'Agincourt, J.B.

Histoire de l'Art par ses Monumens, depuis sa décadence au IVe

siècle jusqu'à son renouvellement au XVIe, Paris, 1823. Romanesque Art, New York (George Braziller) 1977. 'The Geometrical Knowledge of Medieval Master-Masons',

Speculum [47:3] 1972.

'The Role of the Master Mason in Medieval English Building',

Speculum (39/3) 1964.

'Monastic Patrons and Their Architects', Gesta (15/1) 1976. History of Architectural Development, London (Longman) 1916. Estudis d'historia offerts a Ramon d'Abidal, Barcelona (Curial)

1994.

Sorenson, L. Dictionary of Art Historians, www.dictionaryofarthistorians.org

Southern, R. W. Western Society and the Church in the Middle Ages,

Harmondsworth (Penguin) 1970.

Stalley, R. Stiennon, J. Early Medieval Architecture, Oxford (Oxford University Press) 1999. 'Routes et courants de culture. Le rouleau mortuaire de Guifred, comte de Cerdagne, moine de Saint-Martin du Canigou (†1049)',

Annales du Midi [76] 1964.

Stratford, N. 'Le problème des cahiers de modèles à l'époque romane', SMC

(37) 2006.

'Romanesque sculpture in Burgundy' in Artistes, artisans et

production artistique, X Barral i Altet [Ed], 1990.

Sullivan, R. 'The Carolingian Missionary and the Pagan', Speculum (28/4)

1953.

'Architecture autour d'Oliba: le massif occidental de la cathédrale Sureda i Jubany, M.

romane de Gérone', SMC [XL] 2009.

Sureda i Jubany, M. & Freixas i Camps, P.

'Esglésies de nau única en el primer romànic català. Les catedrals

de Girona i de Vic, escenari de continuïtats i ruptures en

l'arquitectura del segle XI a Catalunya', Els comacini i l'arquitectura romànica a Catalunya. Simposi International, Girona, 25-26

novembre 2005. Barcelona (Museu National d'Art de Catalunya)

The French Revolution, London (Batsford) 1974.

Taylor, J

'Lime: the Basics', Historic Churches 2000, Cathedral Communications Limited, www.buildingconservation.

L'architecture byzantine, London, 1864.

Early Medieval Society, New York (Appleton-Century-Crofts) 1967. 'El marc de les comunitats pageses: villa i parròquia en les diòcesis de Girona i Elna (final del segle IX – principi de l'XI)', in Xavier Barral

Texier, C. & Pullan, R.

Thrupp, S. To Figueras, L.

Sydenham, M.

i Altet et al [Eds], La Catalogne et la France méridionale autour de l'an mil, Barcelona (Generalitat de Catalunya) 1991.
Familia i hereu a la Catalunya nord-oriental, segles X-XII,
Montserrat (Publicacions de l'Abadia de Montserrat) 1997.
Leggi sui maestri comacini promulgate dal re Luitprando, Naples,

1854.

A History of Metallurgy, London (Institute of Materials) 1992.

'La chapelle circulaire de Saint-Michel-de-Cuxa', *CCM* (80) 1977. 'The Artisans behind Visigothic Buildings: the Materiality of Identity', *Visigothic Symposia* [2] 2017-18.

Églises romanes. Filiations et échanges d'influences, Briard (Gérard Monfort) 1979.

'Saint-Michel de Cuxa. Composición arquitectónica de la iglesia del siglo X', *Territorio, Sociedad y Poder. Revista de Estudios Medievales* (University of Oviedo) [12] 2017.

Art, Architecture and Liturgy, Groningen (Egbert Forsten) 1993. 'The "Crisis of Cenobitism" Reconsidered. Benedictine Monasticism 1050-1150', Speculum (61/2) 1986.

'Le << premier art roman>> de Josep Puig i Cadafalch à nos jours', pp.17-64 in Vergnolle, É. & Bully, S. [Eds], Le < premier art roman> cent ans après. Actes du colloque international de Baume-les-Messieurs et Saint-Claude, 17-21 juin, 2009, Besançon (Presses universitaires de Franche-Comté) 2012.

'Les débuts de l'art roman dans le royaume franc (ca.980-ca.1020)', CCM [170] 2000.

'La colonne à l'époque romane. Reminiscences et nouveautés', BM [41] 1998, pp.141-174.

'La pierre de taille dans l'architecture religieuse de la première moitié du XI^e siècle', *BM* [154:3] 1996.

L'art roman en France, Paris (Flammarion) 1994.

L'architecture byzantine en France, Paris (V. Didron) 1851. 'Esquisse d'une histoire des mines et de la métallurgie monastiques dans les Pyrénées (IX^e – première moitié du XVI^e siècle), in *Moines et métallurgie dans la France medieval*, [Eds] P Benoît & D Cailleaux, 1991.

L'Architettura religiosa dell'alta medio evo nell'Italia

Settentrionale, Milan 1942.

Histoire générale du Languedoc, 16v. Toulouse (Privat) 2003-05

[Facsimile].

Catalunya romànica, 27v, Barcelona (Fundació Enciclopèdia

Catalana) 1985-97. Catalunya romànica [1] Introducció.

Catalunya romànica [3] Osona [pt.2].

Catalunya romànica [7] Conflent, Vallespir, Capcir.

Catalunya romànica [10] Ripollès.

Dictionnaire raisonné de l'architecture française, 10v. Paris (Morel)

1873.

Entretiens sur l'architecture, Paris (A Morel) 1863, 3v & Atlas. Oeuvres completes. Études sur l'histoire de l'art: le Moyen Âge,

Paris (Michel Lévy Frères) 1864. Architecture lombarde, Paris, 1830.

An Economic History of Spain, Princeton (Princeton University

Press) 1969.

Troya, C.

Tylecote, R.

Uhde-Shtal, B. Utrero Agudo, M.

Valery-Radot, J.

Valls Mora, M.

Van der Ploeg, K. Van Engan, J.

Vergnolle, E.

Verneilh, F de. Verra-Navarre, C.

Verzone, P.

Vic, C de & Vaissette, J.

Vigué, J. & Pladevall I Font, A.

Viollet-le-Duc, E-E.

Vitet, L.

Vives, V.

Walker, R. Art in Spain and Portugal from the Romans to the Early Middle Ages: Routes and Myths, Amsterdam (Amsterdam University Press) 2016. Ward-Perkins, J. B. Roman Architecture, London (Faber) 1988. 'Quarrying in Antiquity. Technology, Tradition and Social Change' (Mortimer Wheeler Archaeological Lecture, British Academy, 1971), Proceedings of the British Academy [LVII], London (Oxford University Press) 1972. Watkin, D. A History of Western Architecture, London (Laurence King) 1986 White, L. 'Technology and Invention in the Middle Ages', Speculum (15/2) White, S. 'Inheritances and Legal Arguments in Western France, 1050-1150', Traditio (43) 1987. Custom, Kinship and Gifts to Saints: the laudatio parentum in Western France 1050-1150, Chapel Hill, NC & London (University of North Carolina Press) 1988. Whitehill, W. Spanish Romanesque Architecture of the eleventh century, Oxford (Oxford University Press) 1968. Wickham, C. Framing the Early Middle Ages: Europe and the Mediterranean, 400-800, Oxford (Oxford University Press) 2005. Williams-Ellis, C. Building in Cob, Pisé and Stabilised Earth, Shaftesbury, Dorset (Donhead Publications Ltd) 1999. Wirth, J. L'image médiévale. Naissance et développement (VIe-XVe) siècle, Paris (Méridiens-Klincksieck) 1989. Wolf, K. B. Conquerors and Chroniclers in Early Medieval Spain, Liverpool (Liverpool University Press) 1990. Wood, J. 'Defending Byzantine Spain: frontiers and diplomacy', Early Medieval Europe [18:3] 2010. Wood, S. The Proprietary Church in the Medieval West, Oxford (Oxford University Press) 2006. Wu, N. [Ed.] Ad Quadratum: the practical application of geometry in medieval architecture, Aldershot (Ashgate) 2002. Yarwood, D. The Architecture of Europe, 650-1550, London (Batsford) 1992. Zadora-Rio, E. 'Territoires paroissiaux et construction de l'espace vernaculaire', Médiévales (49) 2005. 'The Making of Churchyards and Parish Territories in the Early Medieval Landscape of France and England in the 7th – 12th centuries: A Reconsideration', Medieval Archaeology [47] 2003. Zimmermann, M. 'Sur la terre comme au ciel: la paix chrétienne. Oliba (1008-1046), pacificateur et guide des âmes', SMC [40] 2009. 'Aux origins de l'art roman: fragmentation politique, encellulement social et croissance économique', SMC (24) 1993. 'Les Goths et l'influence gothique dans l'Empire carolingien', SMC (23) 1992. 'Naissance d'une principauté: Barcelone et les autres comtés Catalans aux alentours de l'an Mil', in X Barral i Altet et al [Eds] La Catalogne et la France meridionale autour de l'an mil, 1991.

'Les débuts de la <revolution anthroponymique> en Catalogne (Xe-

'La prise de Barcelona par Al-Mansûr et la naissance de l'historiographie catalane', Actes de congrès de la Société des

XIIe siècles)', Annales du Midi [102] 1990.

historiens, [8] 1977.