

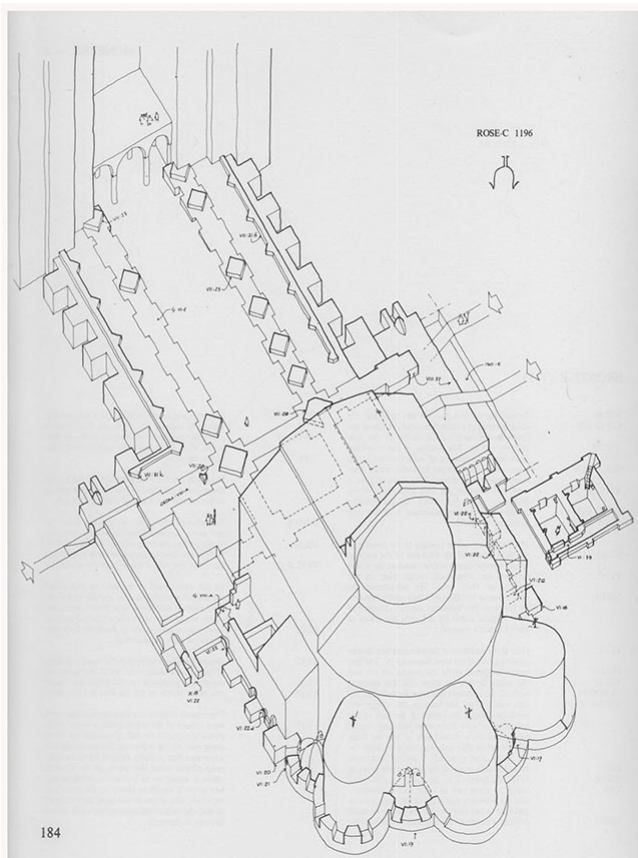
Chartres was lucky the Parisians were busy

Translated from a talk given at the Colloque international sur l'occasion de 8^e centenaire de la cathédrale de Chartres en 1994, et publié dans *Monde médiéval et société chartreuse*, Paris 1997, 39-62.

In 1969 I came to Chartres with my wife Hilary and our three children, and began to probe into the cathedral's history. Through all the years since then I have had the most generous support from the people of Chartres and the wonderful friends we have made here. Whatever I have discovered was made possible by their interest and encouragement. For this I am extremely grateful. Though I have ranged far from Chartres in my search for the origins of the masters who worked there, it is to Chartres I have returned again and again for sustenance and inspiration. With information derived from this wider search I wish to show four things:

- 1) The major contractors who created the cathedral came from the region to the north-east of Paris, from the Soissonaise, the Laonnais and the Reimois. These great men were not trained in the workshops of the Ile-de-France, but in those beyond the Royal Domain.
- 2) The cathedral Chapter may have chosen the builders for aesthetic reason as the style of architecture then being created in the Paris region did not contain the elements that we are used to calling Gothic. With a few notable exceptions such as Notre-Dame, they were squat in design with very little glass.
- 3) The Chapter may have chosen the builders for purely practical reasons as during 1190s there was a construction boom in the Ile-de-France, while the north-east was in economic decline. Parisian builders would have been busy in their own locality, while those in the north-east would have been actively seeking work elsewhere.
- 4) Most of the inventions that created the Gothic style came from the north-east. Without the creativity of that region of earlier prosperity and peacefulness, Gothic as we know it may not have evolved. It was the role of the Ile-de-France to reassemble the inventions that came from the north-east into the next phase of Gothic that came after Chartres, the phase we call Rayonnant, but it is to the north-east that we must look for the origin of the powerful creative impulse that brought the Gothic style into being.

In the five years I spent at Chartres after 1969 I was able to detail the construction sequence of the cathedral, during which I created the investigative technique called Toichology.¹ Some 10,000 changes to the design of profiles and elements across the cathedral showed it had been built by many teams of masons each working for short campaigns of construction. Altogether, some 32 separate campaigns from the footings to the completion of the choir vaults. The documents which help to date the work suggest each campaign lasted for about a year. I illustrated all of these campaigns in isometric drawings like this:



Each campaign was led by a different master. The masters were independent, and were guided by little more than general principles laid down by the Chapter, and perhaps with a large-scale model. I suggest a model from the similarities and the differences between Saint-Remi, Notre-Dame-en-Vaux and Mouzon that suggests that the moulding details were too small to be included.² Within the constraints of the model each master used the technical methods and profiles they liked best. The means for identifying the masters, both at Chartres and elsewhere, lie in these technical details, the elements and profiles, and the way each master used a personal geometry and foot measure.³

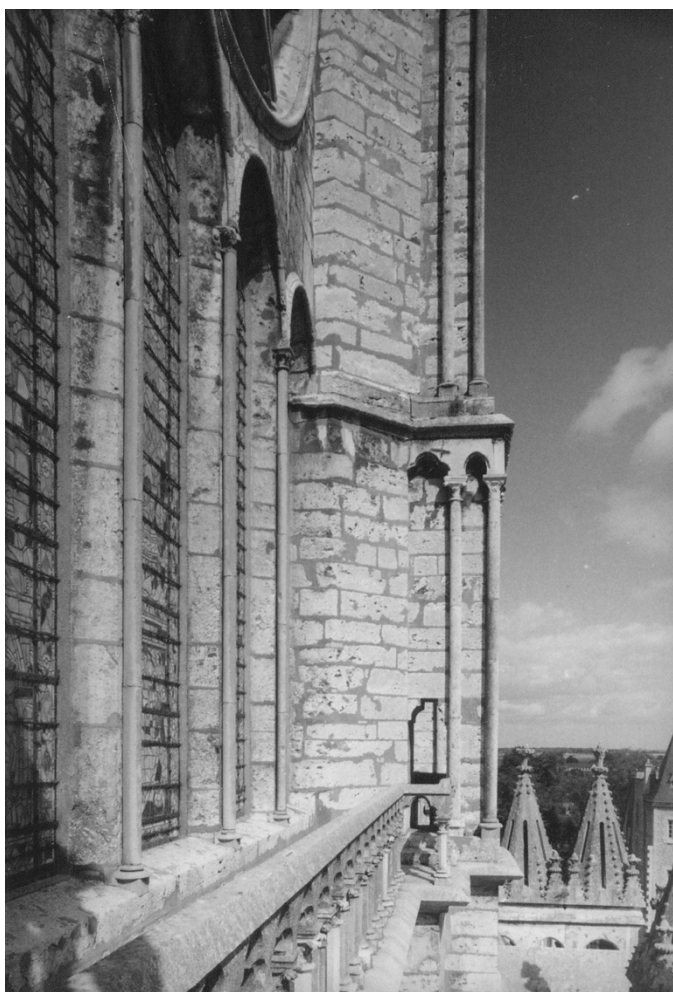
Eight masters shared the work to the completion of the choir clerestory walls. On most occasions they brought their own carvers and masons with them.⁴

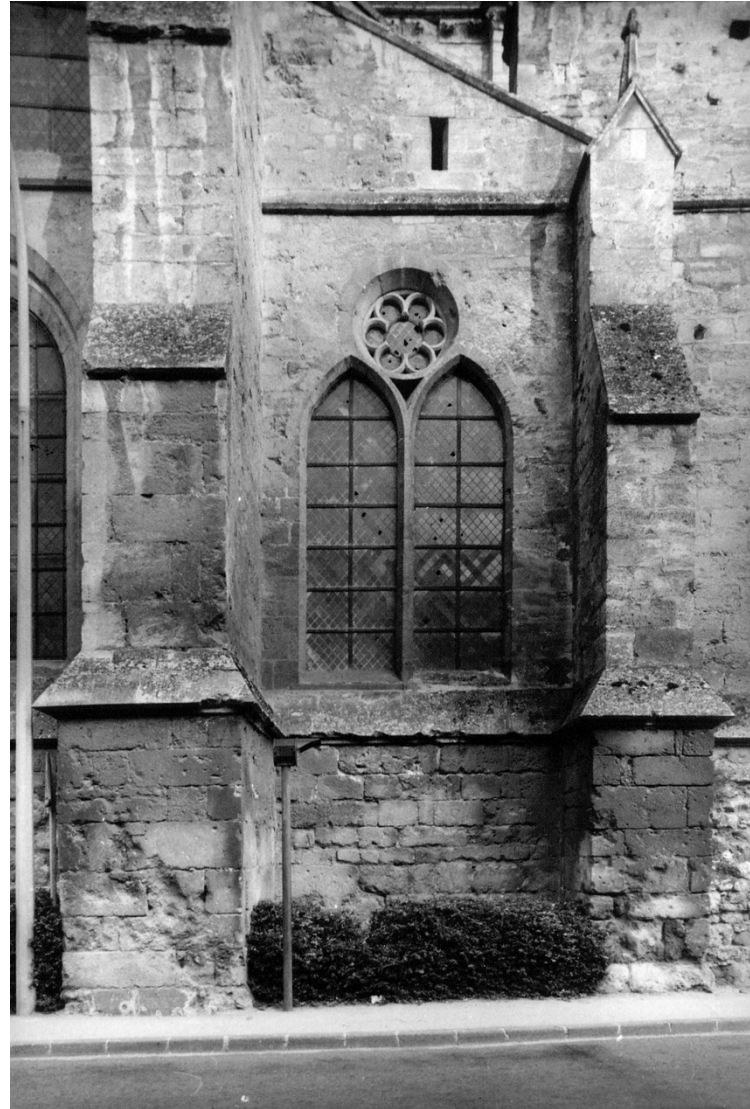
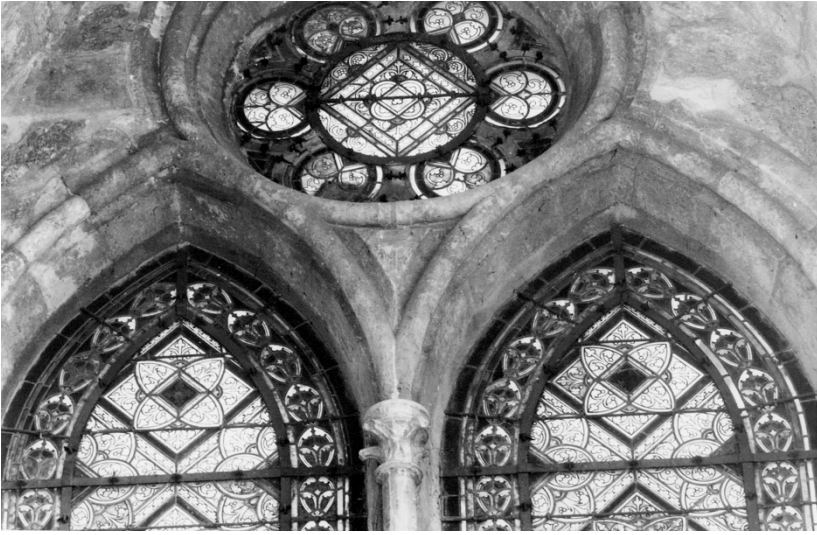
The chronology for the layers of construction was set between the documented dates. From this it was clear that the portal sculpture was earlier than thought, and led to the enormously important conclusion that the apogee of Gothic sculpture had occurred during the reign of Phillippe Auguste, and not of Saint Louis.

Nothing I have read or researched over the past thirty years has altered my earlier conclusion that every Early Gothic building in the Paris Basin was constructed in the same way - in many short campaigns under the control of different masters. At this time there were no *chantiers* under the direction of one permanently employed master. This applies to the whole period from the 1130s to the 1240s and includes works under royal patronage and with presumably adequate funding, like Saint-Denis⁵ and la Sainte-Chapelle.⁶ The Chartres Royal Portal was no exception: the irregularities in the carving being due to the many masters each peddling their own ideas, not by the doorways being moved.⁷

Having identified the masters who constructed Chartres I searched for them in other buildings in the Paris Basin. Olive, for example, worked at Chartres five times, starting in 1197. I have found he also worked at 44 other churches between 1190 and 1230.⁸ At Chartres his design for the five great lancets under the south rose shows his interest in breaking windows into their elements [below, left]. This was in 1210. Just afterwards he began the momentous process that was to lead to the invention of tracery. You can watch this creative process unfolding in the windows to the transept chapels at the Abbey of Essômes on the Marne [below right]

In the northern two chapels the oculus presses down onto the arches over the lancets. There is a small





triangular piece of stone between them [above, top left]. In the two southern chapels he has become intrigued with this triangle and has hollowed it out [bottom left]. Not all the way through, but far enough to create a void on the inside, where there was a solid.

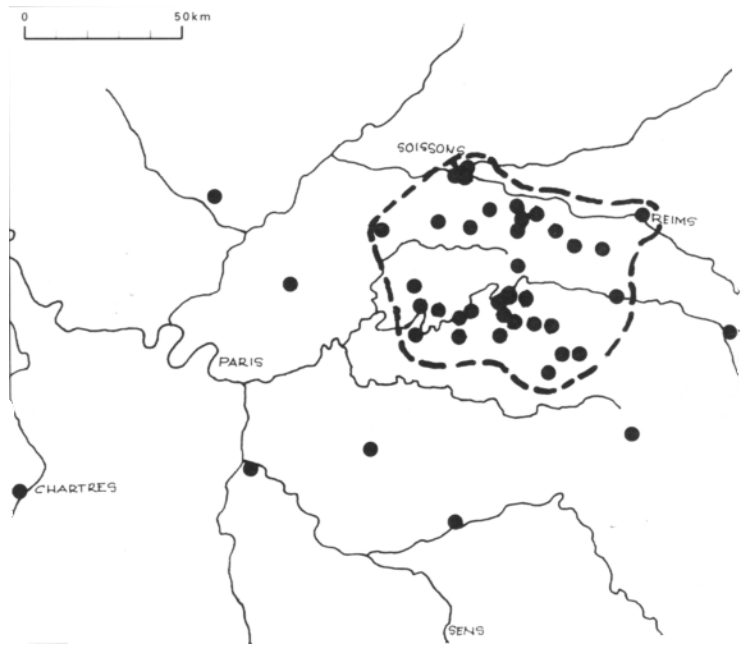
In the fifth window, the one facing to the south, he cut this triangular hole completely through the wall and filled it with glass, [above, right]. This is the first such window in medieval architecture. Before then, every window (and, indeed, every form and element, be it the plan of a chapel, a porch or a door) had been generated from axes and centres that lay within the element itself. Windows were designed symmetrically around a central axis and the centres of their arcs lay within the window opening. This was the first time any medieval master formed an opening as the consequence of the forms around it. Its shape was, as it were, accidental. This was the first step in a transformation that was to have momentous consequences in later centuries – though there is one rider that is discussed in the addendum to this chapter.

This led directly to Olive's design for the chapel windows in the cathedral of Reims [next page, left], where he constructed a large segment of the aisle chapels from the walkway to the apex of the windows and the vaults over them. At Reims he built the first example of true tracery around 1216.⁹

When I identified the other buildings by Olive and plotted them on a map nearly every one of them are bunched together along the Marne [next page, right]. This area would seem to have been his home base. Indeed, nine of his twelve earliest works lie near the junction between the Marne and its tributary, the Surlin. This suggests that Olive may have lived in this area, and that from here he and his men travelled the 150 kilometres south-west to work at Chartres.

I have accumulated this evidence by visiting all 3,500 churches in the Paris Basin to isolate those in which some part was constructed at this time.¹⁰ Among these, 850 have details and carved capitals that can help to identify the masters in charge and date their campaigns.

It was my dream that by identifying the major innovators of the period I would be able to bring a greater sense of life and individuality to this most creative era. It is thrilling to discover these men and to discern each step in their inventive process, as in the invention of tracery. This opens a prospect that I find

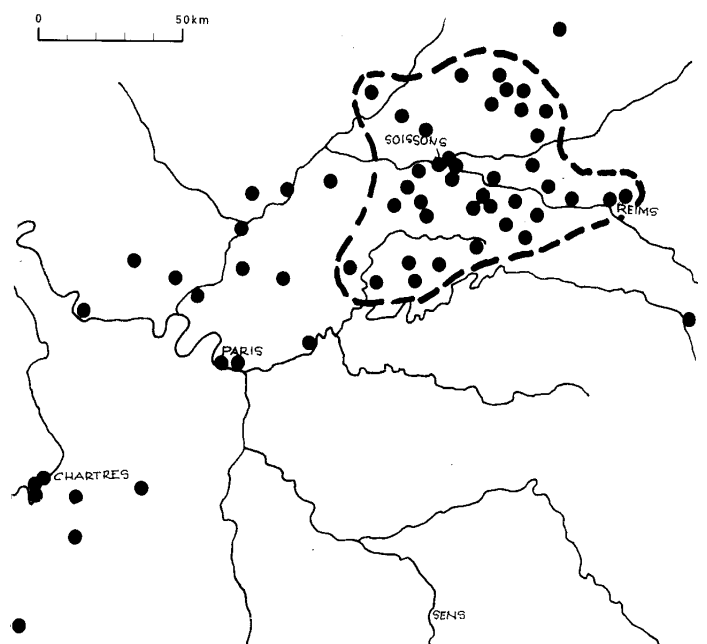
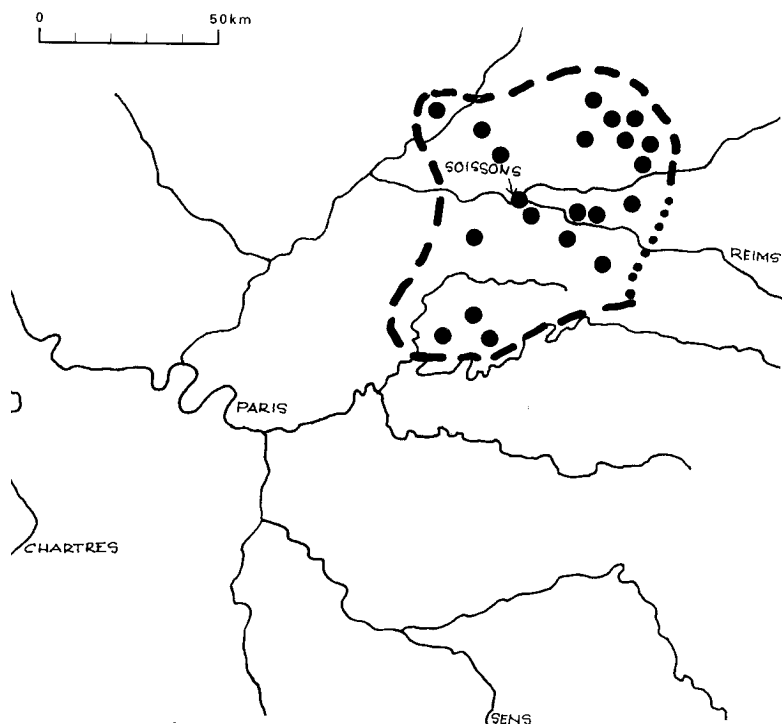


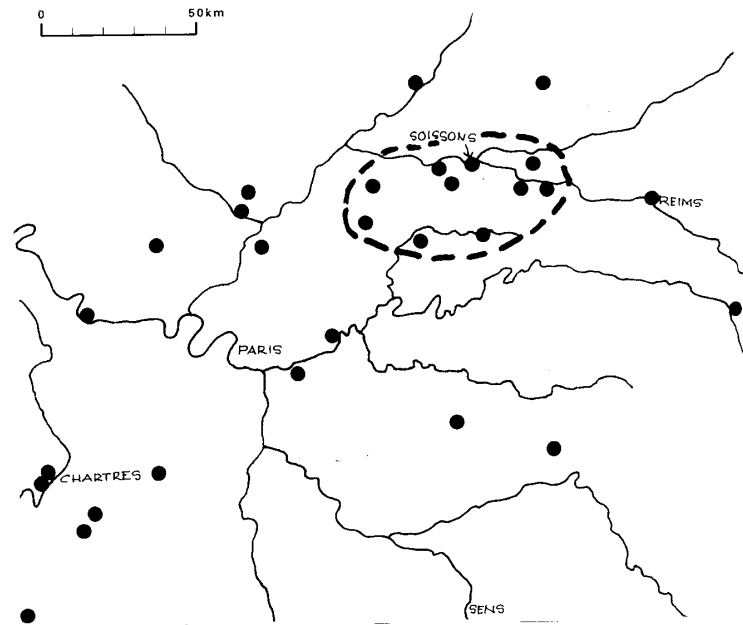
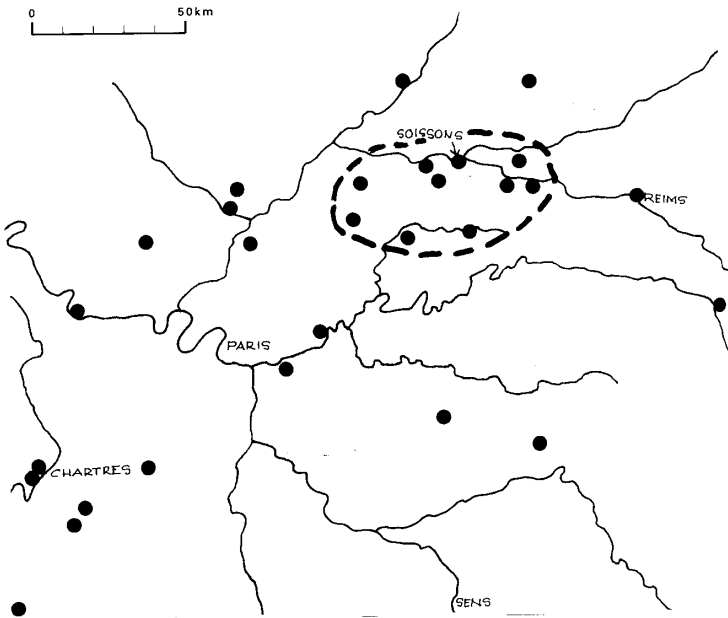
most exciting: - to clothe a previously anonymous period with an individual variety, and to catch a glimpse, however brief, into the actual process of creation.

Bronze, for example, worked at Chartres more than any other - eleven times including the lowest stones of the porches in 1198. I have evidence for him in over fifty other churches between 1170 and 1240 [below left]. There is a definite concentration of work by Bronze in the Soissonaise, including extensive work on the cathedral of Soissons itself.

What we now need to pursue these ideas further is a team of people to study all the fifty or so major contractors of the Paris Basin. Then we will be able to begin writing a history of the extraordinary achievements of the Early Gothic architects from a personal rather than from a stylistic point of view.

It is significant before 1190 Bronze always worked within this core area [below, left] while after 1200 over half his work lay down the Oise valley and on into the south-west [below, right]. At first, he was a local man, but he quickly learned to be an inter-regional contractor moving great distances between jobs. Over the many decades in which this was happening, the travelling would have had a profound effect on the way he was engaged, the way he worked and the way he employed his men. Regional teams based on local quarries and training workshops may have turned into looser organizations relying more and more on part-time subcontractors than on full-time labour.





When I say 'him' for Bronze I refer to the team rather than to the man. Minor changes to geometry and profiles at Chartres have shown that the leader of this team was changed between 1195 and 1198, and again in the mid 1220s.¹¹ Similarly with the Scarlet team where the inspired master who set out the first plan for the cathedral was replaced around 1210.¹² He also set out the Abbey of Longpont, and the choir chapels at Lagny. Scarlet's earlier work, like that of Bronze, lay in the Soissonaise [above right]. After 1210 he worked almost all the time outside his home base.

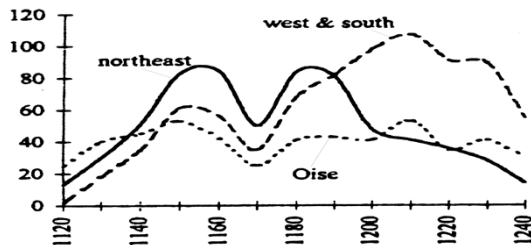
The same concentration of work and travel patterns occurred with Rose, Ruby and Cobalt. The concentration of work in the north-east shows that the major contractors for Chartres came from the Soissonaise, the Laonnais and the Reimois. They were not, and could not have been, trained in the workshops of the Royal Domain.

The reason for this is obvious once we look at what was being produced in the Paris region. The predominant style of architecture did not contain the elements that we are used to calling Gothic. With few exceptions, they were building squat churches with little glass, such as Bagneux, Ferrieres and Villeneuve-le-Comte [below left]. There are 46 of these low-vaulted churches [Map, below right].¹³ This was not being old-fashioned. These churches became more and more popular as the years passed, for where only six percent were built before 1190, forty percent were built in the 1220s.



For this reason, the Chapter's choice of builders may have been aesthetic. They may not have liked what they saw being built just to the north of them.

Yet, there may be another reason. We can now say definitely that while the cathedral was being built a construction boom was under way in the Ile-de-France, dashed line in the graph, while the north-east with the solid line was, after 1190, in sharp and irredeemable decline. This data has been assembled by dating every part of all the more significant 840 Early Gothic churches of the Paris Basin, and by costing each part using a common unit of construction.¹⁴



I must first say a word about dating, for the methods I have employed may be new to some of you. Dating is based on the documents (where they exist) and on scholarly opinion - including the many buildings whose dates have been reassessed during the past ten years. However, there are few scholarly analyses and less documents for the myriad of smaller buildings, and these represent over three-quarters of the total construction of the period.

I have found that by understanding the style of the foliage on the capitals we may date every part of these buildings, and usually to the decade. The way the leaves were carved can provide a reasonably secure basis for dating these works.¹⁵ This method is based on the many hundreds of capitals that can be dated with precision from the documents, such as those at Chartres, the choir of Saint-Denis, and so on.

They show two things. The first is that during the decade of the 1170s, and precisely during that decade, every carver of formal capitals changed their way of working and transformed themselves into carvers of foliage, becoming more and more naturalistic as the decades passed.¹⁶

The second is that after the 1170s there was an even and readily definable evolution of foliage from one decade to the next. Each stage can be defined quite precisely. It is a process from spring and youth into high summer.

We can rely on the accuracy of this evolutionary process for two reasons. First, the capitals that were laid during one campaign of construction will invariably confirm to one decadic fashion. Second, there is not one building where the majority of the capitals in an upper story are stylistically from an earlier decade than those underneath - for if they were this method would be useless.

Returning to the graph above, the solid lines shows the significant decline in north-eastern region. The Laonnais suffered the worst decline, as nearly all construction stopped after 1200. In the west around Paris, on the other hand, construction continued to escalate for another two decades or more, as indicated by the dashed line. This was sufficient to compel most builders to move southward and out of the Soissonaise after 1190. This is why we find Chartres being constructed by men from the other side of Paris.

Building in the Royal Domain was progressing on a very large number of minor churches, with relatively small amounts being spent on each. This suggests the buildings were being funded more by local burghers and vintners than by the nobility - though their prosperity may have had something to do with Phillip's conquests and the advantages he acquired for the tradesmen of the Royal Domain over those of the conquered areas.

One reason for the economic decline after 1200 may have been the climate. The weather had been getting hotter and hotter and the winters less and less frosty for over two centuries before. The growing population and the better food supply made possible by the hotter seasons, formed the basis for the expansion of commerce and the growing power of central government. But from the 90s onwards the climate turned into a prolonged drought. The droughts lasted, on and off, for fifty years. They may have had a serious impact on the many vineyards of the north. As wine production was one of the few landed investments available to the merchants, any risk to the productivity of the vineyards would have undermined a major source for the funding of church construction.

For this reason, the Chartres chapter's choice of builders may have been practical. Bronze and Scarlet and the others may have been the only ones getting less commissions and therefore with open schedules, both available and willing to move a great distance from home.

It is fortunate for us who love this building that the chapter chose men from the Soissons-Marne areas as most of the inventions that created the Gothic style came from the north-east.¹⁷

This raises a most important question: Would the features of the Rayonnant style that was to be created after 1230 have been very different if the inventions of the north-eastern masters had not been available. But for the decline in wealth, would the builders from the Soissonais and the Marne have travelled beyond their regions into other areas? If not, would these ideas ever have been taken up by the Court and transformed into the architecture of la Sainte-Chapelle and the Saint-Denis nave? The lower chapel of la Sainte-Chapelle is typically Parisian: low vaulted and squat. It is the upper chapel that speaks to us of the Soissonais, the Marne and the Reimois. Maybe, without the contribution of the builders from the north-east the Rayonnant of the upper chapel may not have been possible.

Certainly, without these builders the classical form of Chartres would not have been possible. It is to the north-east that we must look for the inspiration and experience that created our cathedral. Whether it was the prolonged drought in the vineyards of the Aisne or some other cause that made these contractors available, it was only through the availability of these great and inventive builders that it was possible for the "Parthenon of France" to be constructed at Chartres and not anywhere else.

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- 1 James, *Contractors*; James, *Master masons*. Methodology described in James, *Template-makers*, especially in the appendix.
 - 2 James, *Template-makers*, 196-200.
 - 3 James, *Contractors*, ch. 5.
 - 4 James, *Contractors*, ch. 16.
 - 5 "8 Saint-Denis chevet".
 - 6 James, *Template-makers*, ch. 4.
 - 7 "7 Ascension and Incarnation portals"..
 - 8 James, *Template-makers*, ch. 8 and 9.
 - 9 James, *Template-makers*, 158-9.
 - 10 "2 An investigation".
 - 11 James, *Contractors*, ch. 22, n. 49.
 - 12 "35 Canopy of Paradise".
 - 13 James, *Template-makers*, map 138.
 - 14 "40 Funding".
 - 15 James, *Ark of God*, ch. 4.
 - 16 James, *Ark of God*, ch. 5
 - 17 Article "The role of the abbeys" on this site.