

## Procedure for dating from the capitals

John James

Changes to the design of carved capitals provide a more exact dating for church architecture than we have had up to now. Instead of relying on such historically imprecise phrases as "early twelfth century" we can specify the decade and at times estimate the actual year.

Construction has been broken down into phases for each distinguishable part of the work. This is based on the discovery in the cathedral of Chartres that there were many small campaigns of construction each led by a different master, and that there is little evidence for a capo-master in overall charge of the works. Therefore, design was piecemeal, decisions were most usually made by whoever took control at the start of a new season, and this applied to the design of the capitals as much as to the structure.<sup>1</sup> In the smaller buildings the evidence for this intermittent contractual method is overwhelming.

Nearly every church was constructed in small efforts. Contractors would come and go with their men, depending on the money and on technical limitations. Carvers too, though they tended to arrive singly. The softness of the lime mortar limited the work in a year to a few courses because the filling in the walls needed time to solidify and months were needed before arch voussoirs could be struck. The fact that this forced the builders on smaller works to leave while the mortar set has made it easier to disentangle the construction process.

In consideration of this situation, I proceeded in this manner:

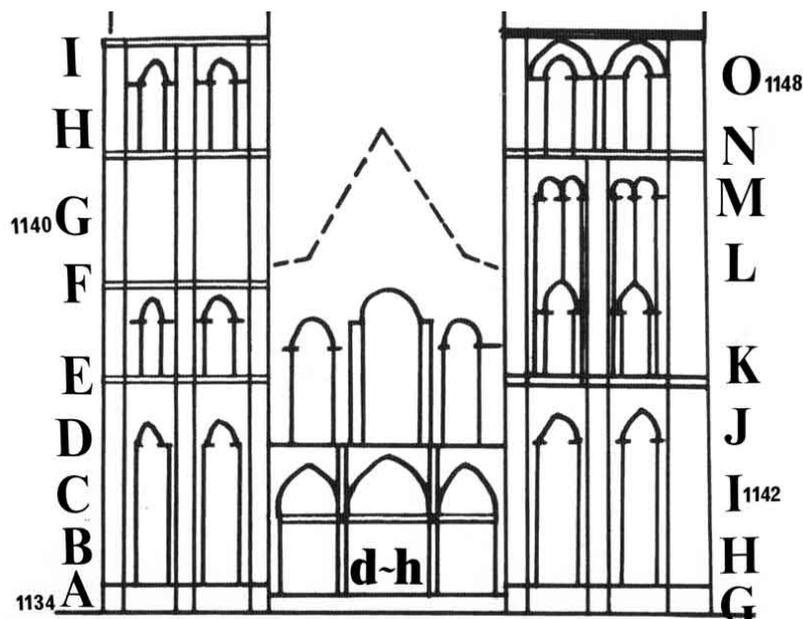
**The first step** was to collect the relevant documents for the 1070-1240 period. These show that selective parts of only thirty buildings have secure dates (listed at the end).

All historic conclusions and analysis rest on these few facts.

**The second step** was to photograph all the carved capitals in the Paris Basin, and especially those in the dated buildings. They have been published in 5 volumes as *The Ark of God* and over 45,000 of them uploaded.

**The third step** was to consider the construction schedules for all the buildings in the Paris Basin, with particular attention given to the multi-story. These are the techniques of toichology.<sup>2</sup>

The two best-dated multi-storey churches are the cathedral of Chartres and Suger's building programs at Saint-Denis. As the upper would usually have to be later than the lower, it shows which capitals came first and which came after



At Chartres the fire dates the beginning of the westworks, and toichological evidence and the changes to masons marks help divide the construction into phases. We can estimate a fair approximation for the dates of

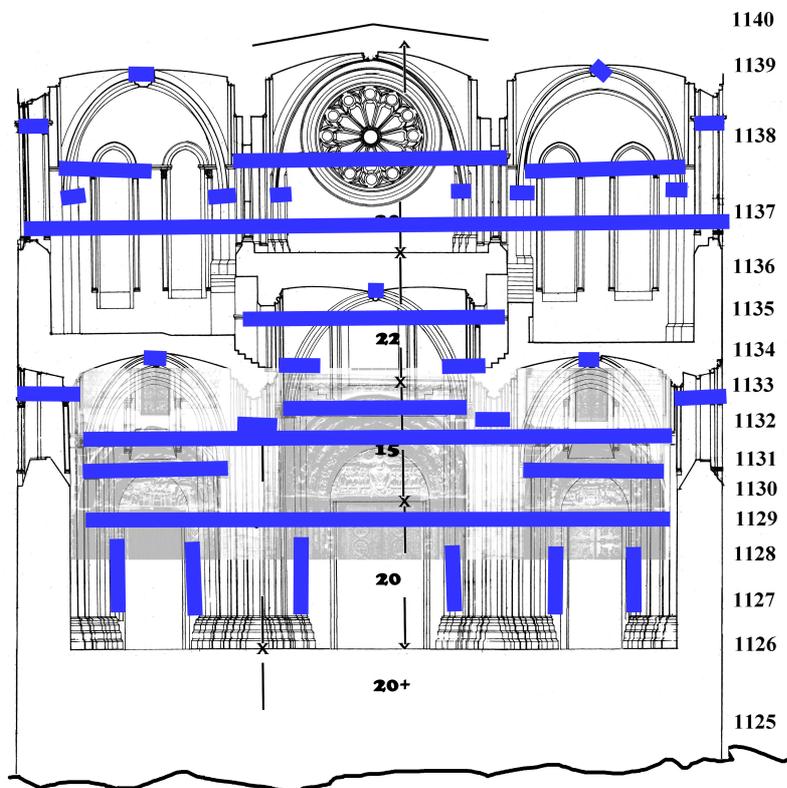
each of the more than fifteen campaigns, which allocates a tentative date for each layer. The potential uncertainties become larger as we approach the top of the south spire, but the chronology for the earlier campaigns would be reasonably accurate and provides an estimated date for each group of capitals. Capitals and sculpture in the portal could be dated in the four years after 1139.<sup>3</sup>

Similarly, the rebuilding after the fire of 1194 has been divided into campaigns from anomalies in the stonework, and though we are uncertain when the vaults were completed, the early work can be dated within reasonable limits.<sup>4</sup>

At Saint-Denis the footings for the narthex could have been started in the mid-1120s.<sup>5</sup> Since we know when the uppermost stones were laid, it is relatively easy to determine the course by course erection program, especially when integrated with the lithic evidence, the changes to profiles and different groups of capitals.

There are 18 phases altogether. With some uncertainty about the foundations, we can allocate a year for each layer, from which we can estimate approximate dates for each group of capitals. This averaged out to some eight courses each year.<sup>6</sup>

The Saint-Denis ambulatory can be dealt with in the same way,<sup>7</sup> as can all the other major multi-storey buildings from this period. On the whole 5-10 courses of masonry would be erected in each campaign, in small buildings as well as large.



**The fourth step**, once this task had been completed for many buildings, was to connect the capitals across time and space. This was done by gathering similar designs and being able to see together, though from a wide area. One example may be seen here.

As more and more buildings were analysed, and their capitals added to the database, the relative chronologies began to interact and to calibrate themselves. Over time this process has become more and more refined and tentative assessments could be made about contractual development over time, of how designs evolved and how the carvers travelled.

Some of the clearest connections are in the rinceau work and those of the Palmier and Faceter groups. Palmier designs became simpler over the years, and the presence in the Chartres portal and the Saint-Denis narthex help locate the dates for similar works in the Etampes transepts. Once the date for that part of Etampes had been established, the adjacent campaigns could be estimated, which had a profound effect on the chronology for the whole building.

In complex and well-researched buildings like Etampes I have appended [shorter versions](#) that summarise the major issues. This has helped keep attention on the wood rather than the trees.

Some collections from dated works show increasing skill and design maturity over time, from which we may slot the undated into the spaces in between.

I have continued this process across all 860 buildings and for over 200 carving manners. Order has emerged gradually, with dates that are reliant on one another across many sites. This has produced an interlocking matrix of chronologies in which one date may be modified only after looking at the implications for adjacent carvers and then the impact that would have on the dates for other buildings. Time-consuming as this is, the procedure has maintained consistency across all sites.

### **Conclusion and credo.**

I acknowledge that certainty is not possible, yet the outcome offers the possibility of greater accuracy than the current approach. We seem to be at the same stage as Italian Renaissance scholars were early last century, and we can be heartened by the gradual successes they have had in firming up the chronologies for their period once they realised accurate dating was possible.

I am presenting these findings as a beginning, an opening into a new field of understanding for this period. The beauty and skill in this branch of carving has held me captivated for a very long time. It has to be shared, in spite of its imperfections. Time and further research should enrich these conclusions.

We now have the possibility of glimpsing the individuals behind a previously anonymous period, and clothing this highly creative era with real people.

**Four interesting observations** have arisen from this process.<sup>8</sup>

1. The 1170s was a watershed. It separates work built before and after. There was a transformation in decorative carving during this decade from highly personal and often-abstracted designs to more realistic foliate arrangements.

For historians such an event is of inestimable value. It forms a boundary that indicates with reasonable certitude that any campaign containing only formal designs would have been carved before 1170 and that any with only natural designs would have been after 1180. It is a method for clearly separating what was carved before from what was carved after those dates. Canterbury has shown that the proportion of each type in any campaign provides some degree of accuracy within the decade.<sup>9</sup>

2. The dated works show that after 1180 there was a consistent development in the morphology of foliage from winter hibernation through the freshness of spring to the dramatic vitality of summer. The changes evolved in steady definable phases over the next sixty years.

It has turned out to be a relatively easy process, once we define the evolution from one decade to the next. The proportion of designs from each campaign do indicate the decade, and the first two volumes of *The Ark of God* were laid out to reflect this development.

3. There is no easy facility for the century before 1170. There are changes in carving style but with few clear dates. I believe we may be able to surmount this through following the work of individuals or definable modes of carving. In the process described above, capitals with similar designs were collected and those that had dates from documented works showed how a carver's work evolved over time. This then guided a chronology for the whole *œuvre*. Wherever this process has been continued with many carvers the conclusions appear to be more solid.

4. The crusades would have interrupted construction, affecting both the supply of labour and funding. Much of the enormous costs may have been supplied through debt. It would not be unreasonable to infer that these debts restricted construction during the crusades and for some years afterwards. I am now exploring how to better define the [decorative carving](#) on either side of these events that is subtle yet distinctive.

### **How applied to this web site?**

Such a detailed line of research is in its infancy. I have assigned names to each mode of carving because that makes it easier for me personally in dealing with such large numbers of objects. At the same time, I recognise that some designs may be like templates that can be transferred between individuals.

Once I am confident on the attributions for a carver or his mode of design, I list the work as having a High certainty, Medium or Little. Within that system, the individual capitals in each gathered collection have been

divided into five categories of visual consanguinity. Those that appear to be the most certain are displayed on opening the page, with the second level of certainty well worth exploration, while the last could not possibly be by the same carver.

As a whole, the dating of the site is based on decades. The more precise "detail dates" given between square brackets allow work to be sorted on the screen in a visually meaningful way within the decade. Though these detail dates are seldom accurate, they are one step closer to reality than the usual broad-brush dating preferred in publications.

Over time one hopes that other scholars will be interested enough to confirm or modify this chronology.

### **There are many unanswered questions**

Being a new way to approach the subject, the uncertainties are many. For example, did carvers travel as much as goldsmiths, were capitals carved with the plinths at ground level or when they were needed further up, were designs owned or shareable, how old were the men when they began training, and so on?

When we think we have recognised a hand, can we assume he always worked the same way, did he pass his designs on to students, did he modify his scheme when working in another workshop, would a carver have more than one mode or many, and would he become excited by ideas used in other places and add them to his repertoire? These are all relevant questions, and the more we pursue this avenue of research the clearer we may become. Some of them are addressed in [an article](#) on the Laon gallery.

Are we identifying individuals, or their templates, or the commonality of many men gathered in a single *chantier*, or combinations of all three? Whichever it turns out to be, the gathering of analogous forms and placing them within carefully organised timelines is providing a consistent basis for a discussion. A couple of dozen studies were prepared on some of the carvers, and though only in draft form and now urgently requiring rewriting, they indicate some of the possibilities open to us. They are [on the right here](#).

My aim has been to open new avenues of research with considerable potential. This Morellian approach may now be at the stage that Berenson and Burckhardt achieved in Italian studies over a century ago. There is a great deal more to be done.

1. John James, *Chartres, les constructeurs*, Chartres, iii vols. 1977-82.
2. Toichology is the name for the techniques of analysis I devised at Chartres from 1969 and set out in *The Template-makers of the Paris Basin* in 1989.
3. John James, "La construction du narthex de la cathédrale de Chartres", *Bulletin de la Société Archéologique d'Eure-et-Loir*, lxxxvii 2006, 3-20.
4. John James, *The contractors of Chartres*, ii vols. 1979-81, Wyong, West Grinstead
5. Lindy Grant, *Abbot Suger of St-Denis: Church and State in early twelfth-century France*, 1998, London.
6. John James, "Could Suger have built the choir of Saint-Denis in four years?" *Avista*, x 1998, 23-25.
7. John James, "Multiple contracting in the Saint-Denis chevet", *Gesta*, xxxii 1993, 42-62.
8. John James, "Boundaries that delineate periods in art-history between 1090 and 1180", *Avista Forum Journal*, 2014, xxii 23-46.
9. Described in detail in volume 1 of *The Ark of God* and illustrated in the layouts for both volumes 1 and 2.