THE NORTH-EAST CORNER

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"At the building of all stately and superb edifices, the foundation or cornerstone is invariably laid in the north-east corner..."

You might recognize those words as part of the lecture given to an Entered Apprentice near the end of his initiation ritual. When I studied for my Entered Apprentice prove-up, those words intrigued me. And when I learned the ritual as Worshipful Master, my curiosity got the better of me, so I had to investigate.

Three questions came to my mind:

- What would the author have considered a "stately and superb edifice"?
- Why did he use the word "invariably"?
- Why the north-east corner?

Shortly after my term as Worshipful Master (1997-98), we spent six weeks in England. We started in London and visited the major tourist sites. St. Paul's Cathedral was on the visit list, and it certainly is "stately and superb." Knowing that these words referred to earlier were likely written in London, in the 1700's, I wondered if St. Paul's was in the author's mind, as it was begun around 1675. Later, we visited relatives in Yorkshire, and I discussed with one – a Masonic brother – my little quest. With them, we visited York Minster, Beverley Minster and Durham Cathedral, plus a few other lesser known churches. These structures are truly magnificent in every meaning of the word. And they were all started 500 – 600 years before St. Paul's.

I accepted that cathedrals were the "stately and superb edifices."

History records show that many of the noted cathedrals of the British Isles were started in the 11th and 12th centuries. Some of these are Salisbury Cathedral, Winchester Cathedral, Wells Cathedral, St. Magnus Cathedral (on the Orkney Islands) Lincoln Cathedral, and, of course, the three mentioned earlier.

Credit can be given to William the Conqueror for that surge in cathedral construction. To preempt any potential uprisings, he encouraged the clergy to build these structures, perhaps to imply that he was king by divine right. By this action, he got the clergy on his side and the Saxons under control. His successors followed this strategy. This "alliance" was beneficial for both sides. Royalty had the mortal body pledging allegiance and performing earthly tasks while the clergy took care of the spiritual needs and prepared the immortal soul for the hereafter.

So let's travel back to the 1100's and build a cathedral. On our way, we will recap a few events:

- 1824 England establishes a Standard Unit of Measure system, known as Imperial Measures. Prior to this, from the 1300's on, the measures were common, but not officially standard. Measures of length were said to be taken from King Henry III, but, if he were of typical stature, the units would be close when taken from any man. A yard was the distance from chin to end of thumb, a foot was a foot about size ten, an inch was a thumb width.
- 1717 Grand Lodge of England is constituted.
- 1600's William Shakespeare is writing. A couple of lines from his famous soliloquy from Hamlet find their way into the Fellow Craft Working Tools lecture. (This is an aside bit of information. It also piqued my interest. Look up the soliloquy if you are curious.)
- Also 1600's the compass much as we know it today was invented. That is, with a magnetic needle mounted on a pin. This was used for navigation and not as part of a transit as was used in the 19th and 20th centuries.
- 1450 the printing press is invented. Prior to this, all manuscripts were handwritten, mostly by monks, and in Latin.
- 1100's Henry II grandson of William is on the throne.

The feudal system of land ownership was firmly in place. Much of the land was owned by nobles who had pled their allegiance to the king. Most of the citizenry were in the service of the nobles as domestics, knights, village tradesmen, or serfs who worked the land. For the most part, these people were bonded to the landowner.

The other landowner was the church. The monks generally did their own repairs, worked the land, milled and preserved their own foods. And they benefited from the charity of the locals through tithing. The land holdings of some of these parishes were significant in size, and would rival the noble's possession. They would have forests and quarries adequate for the construction. That changed when Henry VIII altered the course of Christianity in England and stripped the clergy of much of their land holdings.

Now I ask you to let your imagination be free to follow me while we pretend to construct a small cathedral here in the lodge room. But first, let's look at the layout of a cathedral.

All cathedrals and churches have a somewhat common layout. They are oriented on an eastwest axis. As you pass through the portals on the western wall, you enter the nave, which is the largest part of the building. It is here that the public would come to pray. The nave was also a public meeting place for quiet discussion and gossip. At the eastern end is the quire (or choir) with a high altar. This area was for the clergy only, and was often screened off. About one-third to one-half of the distance from the eastern wall were the north and south transepts. The transepts made the layout in the form of a cross, and separated the quire from the nave. The dome of the cathedral would be over the centre of this cross and would be supported by pillars.

Cathedrals and churches were laid out this way because the practice of the clergy was to direct all prayers towards Jerusalem. And Jerusalem was, to them, to the east. Considering that Christianity took its firm roots in Rome, it is easy to see why they believed this to be so.

But another reason is also plausible. Prayers were often held in the early morning - a practice known as "matins". The public would walk up the hill toward the cathedral and toward the

rising sun, and see the glory of God starting the new day. And during the prayer service, they would be looking at the priest back-lighted by the sun's rays shining through the eastern window, and perhaps feel a sense of awe.

Perhaps this answers my second question, "Why invariably?" And now, I had a fourth question. How did the builders determine the north-east corner? The compass was not yet invented. Navigation skills were rudimentary. What did they use?

(Those of you who have read Ken Follett's PILLARS OF THE EARTH will have recall throughout part of this, as I used his novel as the foundation for this presentation.)

I have explained that most of the citizenry were indentured either to the noble or to the clergy. But as Freemasons we know of another group who were "free to travel and sojourn" — our predecessors. They would be attracted to a new construction project and would move into the village.

The first to arrive would set about building huts and cottages to house their families. Once the first huts were built, it was a practice to accept another mason into your house for a fortnight until he could get his accommodations arranged. This became one of the fundamentals of the charity of our fraternity. The villagers noticed the charity of the newcomers, and respected the masons for their caring nature.

Around the site of the cathedral would be erected lean-tos of poles and animal hides in which the workers could work, meet, and keep out of the elements during the inclement weather. These shelters were called "logens", from which the word "lodge" is derived. In each of these logens would be a crew of like –skilled workmen headed by a master, and assisted by lieutenants, or wardens. There was likely more than one lodge that performed the same work, such as preparing the ashlars for the walls. The finished ashlars would have a marking placed on them to denote which lodge or which mason was responsible for it. Other logens had crews that hewed and prepared the timbers, prepared the slate or other roofing material for the roof, did the scaffolding, prepared the framing supports for the stone arches that would be erected, or did the carving and engraving for the adornment.

Each of these lodges was responsible for all aspects of their work. They had to hire the crew, develop their apprentices, provide the nourishment, and ensure that, to the outside world, the members were good and upright citizens. The apprentices were mostly young lads barely into their teens, and indentured to the master. Besides teaching them the skills of the craft, the senior members would also be responsible for teaching the moral and social codes. They would do this through allegory, much as we use today. They would be taught to be upright men, like the columns or pillars in the project. Or they would be taught to act upon the square, or deal upon the level. These are lessons that we use today and have the same value today as they have had over the centuries.

All of these logens were under the direction of a master builder who was responsible for the design, construction and harmony throughout the project. He had his own logen where he met with the masters of the other logens, and developed the designs on his tracing boards. Since the other lodges were nearby, he could easily visit each and pass along words of encouragement and advice. Do you see a similarity with the Grand Lodge structure and the role of the Grand Master in the speculative Freemasonry of today?

A comment from one of the sources of my research is worth repeating. Both the bishops and the master builders had large enough egos to want something spectacular as their legacies. The bishops would push the builder to "stretch the envelope", and the builder would respond

by creating something of beauty. The result is truly awe inspiring to behold. These master builders were men of vision and not plodders! Not all ideas worked the first time. Winchester, Lincoln and Wells cathedrals all had the towers collapse – or threaten to - but subsequent bishops and master masons solved the problem and restored them to even greater glory. Wells Cathedral has an interesting solution. The master mason in charge of the repair created "scissor arches" to support the centre tower.

Also, the monks had influence on the adornment. When you approach one of the cathedrals from this era, you will notice some rather grotesque figures adorning the outer walls. This was done to depict the evil and sin of the outside world. But when you enter the building, you are struck by the serenity created by the carving of the angels, cherubs, flowers and statues, often of the Virgin Mary. Only peace, harmony and good will are on display – the evils of the outside world have no place inside the cathedral.

A last bit of information to set the scene: The construction work was done mainly over the summer months. During the winter, the ground was often too soft for construction so this period was used for more preparation work and to allow the walls to settle.

It is now spring of the first year of construction. The materials are in place, and the workmen are ready to begin. What remains is to mark out the ground for the building site.

One evening around the vernal equinox, the master builder would go to the north-east corner of the site on which he intends to build. There he places a rod with a loop in it, about eye high, in the ground. The next morning, just before sunrise, he returns to the site, and stands near where the north-west corner will be, and waits for the sun to appear. As it appears, he takes a second rod and, looking through its loop, he sights the sun through the loop on the first rod. When he is satisfied, he drives the second rod into the ground. Next, he takes a length of twine and tightens it between the two rods. He has now set the line for the north wall.

He then goes to the eastern end of the line and puts another stake into the ground. He ties another length of twine around this stake and roughly straightens in toward the south-east corner. He returns to the north-east corner, and takes three rods or sticks he has had prepared: one of three units in length, a second of four units and the third of five units. Using his knowledge of geometry – particularly Pythagoras' theorem – he lays out the triangle with the three-units stick along the north line, the four-units stick along where the east wall will be, and joins the two free ends with the five-unit stick, adjusting the line of the four-units stick while keeping the three-units stick firmly in place. When joined, he has a square in the northeast corner. He tightens the second length of twine along the line of the four-units stick. He has now laid out the line of the east wall and established the exact position of the corner stone in the north-east corner. He supervises the laying of the first stone, and from there, construction begins.

When I described the three rods just now, I used the term "units". Earlier I had said that there wasn't a common system of measures at this time. That may not be quite accurate. The Bible uses the term "cubit", which is defined as the length of a forearm, from elbow to tip of middle finger. The "units" could have been "cubits".

I was satisfied that I had now answered the third and fourth questions. Why the north-east corner? And how did the builders determine the north-east corner?

From the foundation thus laid, a superstructure was raised, perfect in all its parts and points, a credit to the builders.

As the building took a series of lifetimes to complete, many masons settled in the villages and became part of the social fabric. Their ways of life were not missed by the locals, who adopted many of the social values. As they blended together, it was probably the start of the accepted or speculative masons. But the younger masons, eager to develop their own style were still "free to travel and sojourn". And create even more stately and superb edifices.

When researching this, I was amused by two contradictory statements. One is that the masons were referred to as "itinerant masons" and that is consistent with our ritual story about being able to travel and sojourn, etc. The second fact is that it took two or three hundred years to complete some of these cathedrals. No cathedral was started and completed in the lifetime of the masons or the bishops involved at the start of the project. One can assume that there was likely job security for life if you were there at the start of the project.

I hope that this presentation has been both entertaining and informational.

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ACKNOWLEDGEMENTS

The foundation of this presentation was derived from the novel *PILLARS OF THE EARTH*, by Ken Follett. I recommend this for your reading pleasure.

Other research, besides personal visits, was done on the Internet at the following sites:

- The Medieval Stonemason http://www.bbc.co.uk/history/british/middle_ages/architecture_medmason_01.shtml
- The Cathedrals of Britain: http://www.bbc.co.uk/history/british/architecture_cathedral_01.shtml

These two sites link to the major cathedral sites, and offer educational tours.