

Questions we are often asked

1. How did they do it? Masons' tools have not altered significantly since the Middle Ages except:

- i) Electric saw for cutting large blocks of stone and
- ii) Improved haulage systems.

Otherwise much the same. Nearest masons' yard is at Wollaton Hall in the charge of John Key. Mathematical calculations: Masons knew geometry. Euclid known in the West from the C 12; came via the Arabs. Had T squares and rods. But their knowledge regarded as a secret of their craft-hence connection with Freemasonry today.

2. How did they organise themselves?

Master masons were literate and numerate and of quite good family. Masons were attached to lodges, which were attached to buildings, as a) Apprentices: at least 7 years, b) Journeymen: name comes not from journey, but from French la journee, because paid by the day.

Masters\* the aristocracy of masons. Workmaster was the master-mason i/c of a building and was the equivalent of an architect, though that term was never used.

Workmaster, designed the building and sat at the high table with the nobility (other masons sat with the gentry, and the journeymen with the yeomen

3. How did they design?

Plan of building laid out on the ground in series of rectangles: ie. the plot.

Made drawings (of which some survive) on parchment or paper.

Had Tracing Floor in the Lodge on which designs and copies of mouldings etc. were made. One such still survives at York. From tracings made wooden templates, used to carve mouldings.

Drawings divided into sections, one for each mason working on the job. (still some today at Tours.). These methods used by Ivo de Raghton, workmaster on Chapter House at Southwell.

4. How did they get it straight?

Rods and T squares, . Villard de Honriecourt, French workmaster whose pattern book survives, knew and used Euclidean geometry.

Haulage: very primitive. Windlass worked by hand haulage or by treadmill. Pulley and wheel with counterpoise. Small stones raised in baskets.

The pointed ( Gothic } arch probably came from Arabs via Spanish Moors or Crusades; wooden supports ( centring) used till keystone in place; sometimes with earth or clay on top of the centring. Same method used for stone vault.

NB. Southwell: cf. and contrast ribs of vault in nave aisles with those in choir: former very clumsy as they had not yet learnt to shave back the ribs where they meet.

5. Additional Points

- a) No or few foundations used: building held up by its own stresses and tensions.

NB. They worked empirically by rule of thumb and the light of experience. Usual to start at the East End and work westwards. During demolition before rebuilding, a temporary wooden structure erected so that services could continue.

Importance of the Norman Kingdom of Sicily in transmitting Eastern influences and ideas. King Roger used Arab and Byzantine masons, but also visited by Westerners, eg. Adelard of Bath.