The words ‘mould’ and ‘loft’ share the characteristic, common in English, of existing as both noun and verb. Between them and their associated words (lofting, moulded, etc) they run over a column each in the Shorter Oxford English Dictionary (OED). I can loft in a loft and mould a mould in many ways and with many distinct outcomes. In the case of mould - putting to one side its dusty green second meaning - its noun refers to a pattern, a template, a hollow form, a vessel. To mould is to engage in the activity not of creating the mould itself, but of creating the object the mould would represent – the cast. The two words hold a looping and slightly slippery relationship – one casts a mould, yet can remove from the mould – a cast. In fact until recently (the OED suggests that this usage is now rare or obsolete) to mould could mean “to take a cast of.”
A loft is a place close to the sky, above us, its sense strongly attached to the other words derived from the same root; aloft, lift, lofty. Lofts are airy places full of light, their program unfixed, vague and spare. To loft can mean to build oneself a loft, but it has the dual meaning of sending something upwards into the air – a ball typically. Inherent in a 'loft' – as opposed to a 'throw' or a 'hit,' is a sense of graceful trajectory, of a path inscribed fleetingly yet with geometric precision up and across space. A 'lofter' is a number eight iron in golf – used for lofting the ball. It sends our eyes upwards in admiration; it is six runs, a birdie, or lost altogether.

In the late sixteenth century, with the European nations engaged in the grand project of navigating the oceans of the world in search of wealth, 'mould' begins to develop a specific definition applicable to shipbuilding. Originally this is one of “giving a particular form or structure to a vessel” but as the science of mathematics and geometry develops mould adds to its more traditional haptic applications (mixing ingredients, shaping loaves of bread, planing wood) a more representational role. In shipbuilding it becomes over time the provision of “a particular pattern (for timbers etc) using moulds”; a system by which an object not yet made (known) can be measured and understood. Running in parallel with the three dimensional understanding of the planet and its means of representation on a two dimensional surface, comes the inverse application; the means to imagine and represent a complex three dimensional object in two dimensions. As the movement of the planets and the spherical world begin to unfold before us in the elegant early cartographic experiments of Gerard Mercator and the like, so does the ship expand, growing to meet its new and more distant horizons. It exceeds the scale of craft emerging instead into a new world of projection.

By the time the Endeavour departs Plymouth to observe the passage of Venus, our two words, loft and mould, have met. The distinct shipbuilding meaning of mould “any of various thin flexible pieces of wood used for making a pattern of the frames used in constructing a ships hull” encounters its preferred surface of inscription in a new shipbuilding definition for loft “a large room or gallery where something can be spread out for working on.” Thus the place becomes

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The traditional art of lofting in ship building (and subsequently aeronautics) consists in the translation of each rib of the hull of a ship, and plate in the case of steel ships, into lines on the floor of a mould loft. The lines are derived from models and scale drawings and are first laid out by scribing into the timber boards of the floor using a series of points and radiating projection and calibration lines. The complex geometry of a ship structure and the compound angles formed by the joints mean that accuracy is critical. Once set the lines are annotated and marked off in paint. Wood or sheet metal templates are made of each segment and these taken to the wood or plate shops where the actual members of the ship are cut. As the floor of a mould loft cannot be replaced with each new project, it becomes over time a record of the manufacturing history of the shipyard, each ship being recorded in full scale one over the other on the floor of the loft. This process became redundant in the 1980s with the advent of Computer Aided Lofting (CAL).

The following images were taken of the mould loft at Cockatoo Island in November of 2006. It is a light and airy room on the island's plateau that echoes with our footfall and the shrieks of seagulls. Giant elliptical lines crisscross the floor in white, red and pale blue painted dashes with neat inscrutable annotations. Only as the sun begins to lower and the shadows lengthen does the maze-like network of pinpricked points and finely inscribed geometrical construction lines emerge; arcs, chords, radii...our eyes adjust and they fill the floor, a vast and distant constellation, revealed by the darkening night sky.

Notes:
The mould loft floor at Cockatoo Island is due to be stereometrically photographed by the Sydney Harbour Federation Trust in 2007.
Steering Gear Flat 25'-0" A.B.L. Frs.7-A.F.