

On Defining Joinery

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Most scholars of early English furniture agree on a technical distinction between medieval ‘carpentry’ and early modern ‘joinery’, the latter often described as ‘panelled’ or ‘framed and panelled’ construction. They generally follow the schema proposed by Victor Chinnery in 1979, which presented early chest construction as a technical progression in stages, each more sophisticated than the last — from ‘dug-out’ to ‘boarded’, ‘clamp-front’, ‘joined’ or ‘framed and panelled’. Each stage also represented an attempt to solve one or more of the problems inherent in making wooden furniture — weight, warping, shrinkage and aesthetic restriction.¹ While it has often been pointed out that these categories are not mutually exclusive and that earlier or more ‘primitive’ forms were made coevally with more sophisticated ones, no one has seriously challenged the basic premise of progression through technical improvement. There is general agreement, also, that the development of joinery was a prerequisite for the emergence of modern furniture forms, including panelled chests and what Chinnery called ‘open-frame’ furniture — tables, chairs, stools, *et cetera*.² Thus the date at which joinery came into use in Britain is one of central importance to the history of early furniture, but this raises a prior question: how do we define joinery?

A review of the literature of the subject from Fred Roe onwards reveals that no author has actually defined what joinery is but has assumed it to be self-evident. There is a general recognition that the mortise and tenon joint is an essential feature, but that alone is insufficient to distinguish joinery from other forms of construction which might also employ this joint or variations of it. An example is ‘clamped’ construction, which Chinnery regarded as the ‘earliest manifestation of joined work’ because the fronts and backs of clamped chests were created by housing the ends (or ‘tenons’) of the lengthwise boards into long slots (or ‘mortises’) in the sides of the vertical ones and fixing them with pegs (Figure 1). This type of joint, he posited, was a precursor to the smaller mortise and tenon joints used in later framed and panelled work. Clamped chests were also often braced at the ends by horizontal rails, tenoned into the front and back stiles (Figure 2). However, these rails were independent of the end boards, which were housed in vertical slots cut into the stiles, and as Penelope Eames pointed out, the *appearance* of panelling using applied framing is a very different thing to true panelling in which the frame and panel are an integrated unit.³

Thanks to dendro-dating we know that clamped chests were made in Britain from at least the last quarter of the twelfth century, but Chinnery admitted that ‘the status of the joiner is not clear at this transitional stage... it seems that for many years the makers of such chests were still considered as hutchmakers/carpenters. Separate status for the joiners did not come until the full development of framed panelling’.⁴ Chinnery

¹ Chinnery (1979), pp. 69–119.

² *Ibid.*, p. 119.

³ Eames (1977), p. 274.

⁴ Bridge & Miles (2011); Chinnery (1979), p. 110.



1 Chest of typical 'clamped' construction, English, 1200–1400. © *The Victoria and Albert Museum, London*. W.158.1921



2 Chest of clamped construction with framed ends, English or German, 1300–1400. © *The Victoria and Albert Museum, London*. W.49-1912

suggested that in reality ‘True panelling first appeared on the Continent probably c. 1400 and must have reached England soon after’, and cited the built-in cupboard at the Vicars Choral, Wells (c. 1457), as an early example. Penelope Eames took the same view.⁵ But what is ‘true panelling’?

Chris Pickvance, whose work focussed closely on the development of medieval chests, regarded the early fifteenth-century date as too early, writing: ‘The familiar framed, multi-panelled, chest started in the mid-sixteenth century in England...’.⁶ Is Pickvance’s ‘multi-panelled’ chest the same as Chinnery’s ‘true panelling’? And is the number of panels important? Is a multi-panelled chest essentially different in kind from one with fewer panels, and how many panels are needed to qualify as ‘multi-panelled’?

The problem of definition was highlighted by Nick Humphrey’s recent article on the V&A desk, published in *Regional Furniture* 2021 (Figure 3).⁷ This important object has often been illustrated and discussed in the literature but until now has not received the kind of forensic attention needed to make sense of it. At last we have a firm date provided by dendrochronology and a detailed analysis of its construction. The dendro-dating revealed that the desk cannot be earlier than 1420 and is likely to have been made in ‘the second quarter of the fifteenth century’, perhaps 1430–1450. Its construction is based on four vertical corner posts whose tops are connected by rails, horizontal across the front and sloping at the sides. At the back the top rail is a hybrid, integral with the top board of the front ‘panel’. A base rail connects the two back posts, but at the sides and front the (presumed) base rails have been lost. The spaces within the framing are filled with boards housed in grooves in the posts and rails, and the arcaded decoration is carved out of the thickness of the boards.

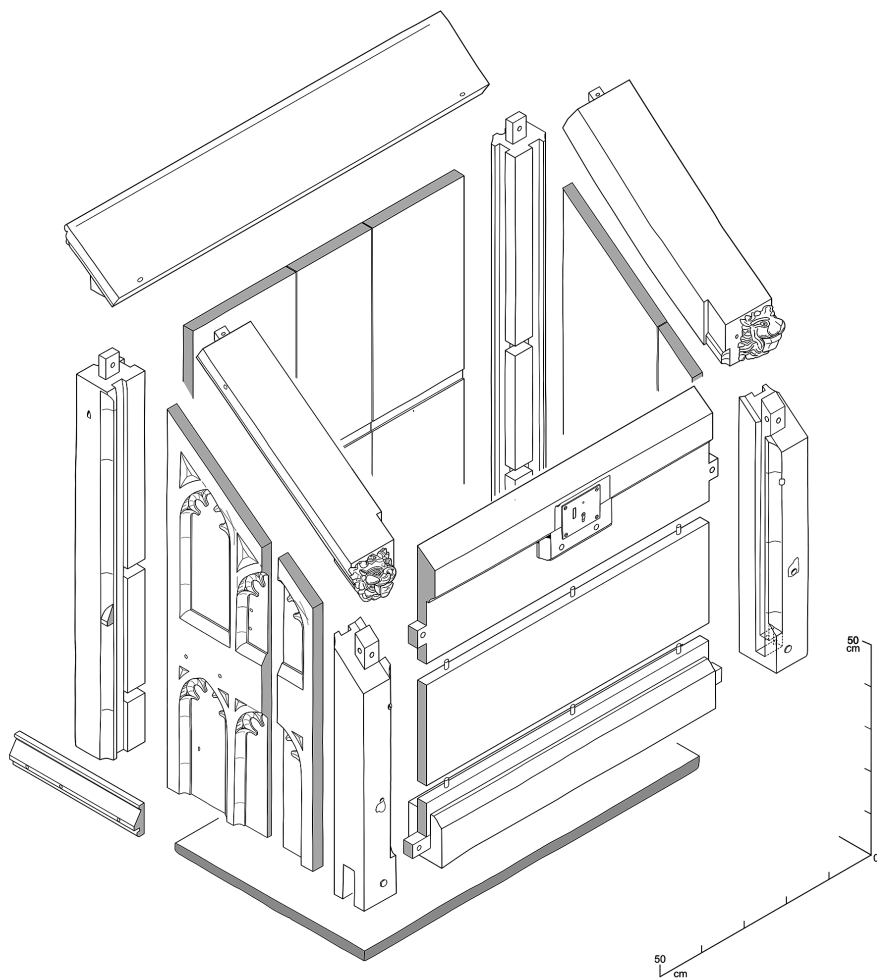
Is this framed and panelled construction? The answer is provided by a simple test – what happens if the boards are removed? Does the structure collapse or does it stand? In the case of a clamped chest, the answer is no, because the boards *are* the structure. In the case of the desk, the answer is yes. The structural integrity of the frame is not compromised by removal of the boards. A further test might also be applied: does the construction allow for movement of the board/panel? Again the answer is no in the case of clamped construction and yes in the case of the V&A desk.

The V&A desk is a rare type with an unusual structure, but there are examples of more conventional joined furniture which can reliably be assigned an early fifteenth-century date. One is the large chest in the Lapidarium of Westminster Abbey (Figure 4). Previously dated on stylistic grounds to the early sixteenth century, the chest has now been dendro-dated a century earlier. This chest probably fails Pickvance’s ‘multi-panelled’ criterion, having only three panels, each composed of several boards, but it is undoubtedly of framed and panelled construction. The structure of the frame is independent of the panels and does not rely on them for its integrity. An analogous object which has so far escaped scholarly attention is the counter-table/chest in York Minster (Figure 5). Although it has not been dendro-dated, the ironwork is almost

⁵ Chinnery (1979), p. 113; Eames (1977), pp. 274–276.

⁶ Pickvance (2007).

⁷ Humphrey (2021), V&A accession number 143–1898. A full list of the published literature is given in the V&A cataloguing entry: <https://collections.vam.ac.uk/item/O131494/desk-cupboard-unknown/>



3 Exploded drawing by Richard Sheppard of the V&A desk-cupboard, English, 1430–1450.
© The Victoria and Albert Museum, London. 143–1898

identical to that on the cupboards in the Minster's Zouche Chapel, whose wooden cupboard doors have been dendro-dated to *c.* 1400.⁸

The Westminster Lapidarium and York Minster chests are good evidence that the framed and panelled construction was employed for some English chests by the early fifteenth century. They herald the introduction of an important new principle of furniture construction, which is the separation of structure from content, regardless of whether the 'content' is a panel or a void. This means that 'true panelling' was not a refinement of clamped construction but was a new system based on different structural principles. As Hugh Harrison has commented in relation to the South Quire

⁸ Fletcher & Morgan (1981).



4 The Westminster Lapidarium Chest, c. 1400. *Photo: Dan Miles/Martin Bridge*



5 The York Minster counter table or chest, c. 1400. *Photo: © Chapter of York: reproduced by kind permission. YORDC.2015.046.*

screen at Exeter Cathedral (c. 1390): ‘In this period the frame as a structural unit was developed and became widely used... The frame employs the minimum of material to create the strongest two-dimensional structure; three-dimensional structures are made from the same frames linked at corner posts’.⁹ The importance of the frame as a principle of construction was highlighted by the London Court of Aldermen’s Arbitration of 1632, which specified which work should be done by carpenters and

⁹ Harrison (2007).

which by joiners. It's a complex document with many headings, but only joiners were permitted to make 'framed' work, joined with mortises and tenons.¹⁰

Why did it take so long for framed construction to be adopted for furniture making? It was certainly not for want of technical ability. Peter Massey and Paul Reed's recent article on the Chapter House door at Westminster Abbey (published in *Regional Furniture* 2021) reveals a high level of woodworking skill and the use of sophisticated tools even before the Norman conquest.¹¹ Other studies of support the notion that medieval carpenters possessed a deep understanding of their material and the skill to work it with amazing precision — for instance the joggled and counter-rebated Night Stairs door at Bristol Cathedral, made *c.* 1130.¹² Framed and panelled work does not require anything like such accuracy; the panels fit loosely in their grooves and the mortise and tenon is one of the most rudimentary woodworking joints. The adoption of framed and panelled construction was therefore unlikely to have been the result of superior woodworking skills.

Leaving aside considerations of style and decoration, the factors most directly affecting the cost of any manufactured product are materials and labour. On both these counts panelled construction was superior to earlier methods, whether for moveable furniture or for fixed woodwork such as wall panelling. Although we do not have reliable price series for medieval oak, which would allow us to determine whether rising costs were a factor in the transition to panelled construction, it is a fact that frame and panel construction uses less wood than boarded or clamped construction for a structure of equivalent size and rigidity. Anyone who doubts this should try lifting a clamped-front chest. Furthermore, in joined construction the quality of the wood is less important, since the problem of movement in small scantlings is less than in larger ones and allowance for movement is inherent in the construction. Labour costs are also lower because construction can be broken down into a series of repetitive operations for the different components — stiles, rails, muntins and panels — and these parts can, if necessary, be made off-site. The difference may not be much for a single chest with a relatively small number of parts, but for large runs of room paneling the efficiencies of scale are significant.

Prior to the fifteenth century, interior walls, if lined or 'sealed' (*lambruscare* in medieval Latin) with wood, were fitted with riven feather-edged boards, vertically aligned and closely fitted with an early form of tongue and groove, worked with great precision along the whole length of the boards.¹³ The ends were usually housed into substantial top and bottom rails and the boards nailed at intervals along their length into rails hidden behind. The whole structure was rigid and did not permit movement. Very few examples of this type of wall lining survive, but the Council Chamber at Compton Wynyates is one, as is the porch at Lavenham Guildhall, both quite late examples dating from the early 1500s. The same style of construction was employed for some large case furniture, such as aumbries and presses.

¹⁰ Jupp (1887), pp. 295–302.

¹¹ Massey & Reed (2021).

¹² Harrison (2007).

¹³ Lloyd (1928).

The principal drawbacks of boarded walling were cost and movement: cost because it required long boards of expensive riven oak, and movement because shrinkage opened gaps between the boards. Only the best quality wood, preferably Baltic wainscot, could be guaranteed to stay tight. Sometimes vertical ribs were applied to cover the joint. Panelled construction avoided both these problems and, furthermore, allowed the whole production process to be systematized into a series of components and processes, all parts being batch produced. The fitting together was the easiest part.

Although framed and panelled construction was undoubtedly superior in performance to both boarded and clamped construction, it was not more difficult to produce. In fact it was easier, and its adoption can be therefore be interpreted as a response not to technical advances but to economic pressure. It allowed less skilful workmen to produce more work in shorter time with inferior materials. Of course, this is only an hypothesis: the necessary data on timber prices and woodworkers' pay and productivity, which might add substance to the theory, do not exist. But there is no reason why medieval furniture making should not obey the same economic laws as any other manufacturing business, and the tendency is, in any age, for cost to be the main driver of innovation and progress.

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