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The Significance of Coffin Construction Practices in the Old and Middle Kingdoms

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Abstract

Over time, technology and traditions shift as artists or craftspeople adapt to transformations in fashion, politics, religion, the availability of materials, and advances in knowledge. These changes in production are often visible in the material record. Understanding why certain elements of production change or remain constant can therefore help archaeologists or historians to understand better the broader social contexts in which these communities of practice lived and worked. Developments in the production of ancient Egyptian coffins over time can provide an example of the type of social insights that a long-term, large-scale analysis of technological history permits. In this *longue-durée* analysis, the author highlights the construction history of coffins from the beginning of the Old Kingdom through to the end of the Middle Kingdom, punctuated with a selection of detailed case studies. The adaptations in practice show carpenters beginning a tradition, demonstrate the emergence of communities of practice, and express a major shift in approaches in response to revolutions in religious expression. Once this tradition emerges, however, it remains constant throughout the First Intermediate Period and beyond, during a time otherwise characterised by experimentation and political upheaval. This suggests a continuity and resiliency among communities of carpenters, building up an alternative history to the royal narrative.

Key-words: Coffins; Woodworking; Old Kingdom; Middle Kingdom; Democratisation

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La importancia de las prácticas de construcción de ataúdes en los Reinos Antiguo y Medio

Resumen

Con el paso del tiempo, la tecnología y las tradiciones cambian a medida que los artistas o artesanos se adaptan a las transformaciones de la moda, la política, la religión, la disponibilidad de materiales y los avances en el conocimiento. Estos cambios en la producción son a menudo visibles en el registro material. Entender por qué ciertos elementos de la producción cambian o permanecen constantes puede, por tanto, ayudar a los arqueólogos o historiadores a comprender mejor los contextos sociales más amplios en los que vivían y trabajaban estas comunidades de práctica. La evolución de la producción de ataúdes del antiguo Egipto a lo largo del tiempo es un ejemplo del tipo de conocimiento social que permite un análisis a largo plazo y a gran escala de la historia tecnológica. En este análisis de *longue-durée*, el autor destaca la historia de la construcción de ataúdes desde el comienzo del Reino Antiguo hasta el final del Reino Medio, enfatizando en una selección de detallados estudios de casos. Las adaptaciones en la práctica muestran a los carpinteros iniciando una tradición, demuestran la aparición de comunidades de práctica y expresan un importante cambio de planteamientos en respuesta a las revoluciones en la expresión religiosa. Sin embargo, una vez que surge esta tradición, se mantiene constante durante todo el Primer Periodo Intermedio y más allá, en un momento caracterizado por la experimentación y la agitación política. Esto sugiere una continuidad y resistencia entre las comunidades de carpinteros, que construyen una historia alternativa a la narrativa de la realeza.
Palabras clave: Ataúdes; Carpintería; Reino Antiguo; Reino Medio; Democratización

1 Introduction: Constructing Egyptian coffins

Ancient Egyptian wooden coffins are in a unique position to provide archaeologists and historians with a broad range of insights into the practices and beliefs of ancient peoples. While they were financially or socially unattainable for many individuals, they did belong to a broader intersection of society than simply the highest elite. Coffins have been found that belong

to untitled workers through to the pharaoh himself, existing in all periods of Egyptian history (Arbuckle 2018) . Both the possession of the coffin as well as the materials involved in its construction allowed owners to compete in displays of conspicuous consumption and social access (Cooney 2021: 11-12). The coffin was not simply seen as a receptacle for the corpse, but over time acquired multiple levels of religious significance including the physical and magical protection of the corpse, the house of the soul, a divine womb, a 'rebirth machine', a secondary Osiride body, and more (Miniaci 2018; Nyord 2014; Taylor 1989: 7-11; van Walsem 2014; Willems 1988: 46-48). From an Egyptological standpoint, due to their widespread use and religious significance, changes in the development of the coffin can therefore provide information about access to materials, the environment, or relationships with other states, in addition to shifts in religious beliefs and technologies.

Due to the ancient Egyptian practice of building tombs in dry desert cliffs, the preservation of these wooden objects is also far superior to the survival of organic materials from most other ancient civilisations. In addition to the objects themselves, the Egyptians also painted woodworking workshops on their walls as part of the so-called 'scenes of daily life', and created wooden models that included details like miniature tools. Egyptologists therefore have unprecedented access to knowledge surrounding ancient workshops and woodworking technology (for an overview, see Gale et al. 2000). The Egyptian sources are therefore often used as comparanda for scholars studying production in other Mediterranean civilisations (see for example Maragoudaki 2019). From an archaeological point of view, understanding the *longue durée* of Egyptian wooden coffin production can therefore have much broader implications for interpreting archaeological evidence from the wider Mediterranean.

While the decoration and inscription of coffins has been a major topic of discussion in Egyptology for some time, only relatively recently has the value of technological investigations begun to be appreciated. So far, however, these publications tend to focus on the later periods of Egyptian history, with a particular interest in the production of coffins from the Third Intermediate Period (for examples see multiple articles and chapters in: Amenta and Guichard 2017; Arbuckle MacLeod 2021; Dawson and Strudwick 2016, in which a few older coffins are mentioned; Strudwick and Dawson 2019; Taylor and Vandenbeusch 2018). In comparison, only a few works dedicated to the construction of Old and Middle Kingdom coffins exist (Donadoni Roveri 1969; Grajetzki 2014; Haslauer 2009; Willems 1996). These exceptional publications do not, however, consider the broader context of technological

change and its social implications, providing a limited understanding of what this evidence could reveal about production practices, the traditions of craftspeople, and the Egyptian funerary economy.

While a thorough and detailed investigation of the many choices and shifts in coffin production is beyond the scope of this paper (see however Arbuckle 2018; Donadoni Roveri 1969), a selection of coffins from the Old and Middle Kingdoms has been chosen to provide case studies to demonstrate the importance of studying construction details. The case study selection was based on superior preservation and the essential level of access that was generously provided by the Museo Egizio in Turin. While these selections therefore represent a bias towards specific sites, namely Gebelein, Asyut, and Giza, additional published examples are cited to demonstrate the prevalence of highlighted construction choices throughout Egypt in the relevant periods.

2 Old Kingdom coffins and experimentation

From the earliest coffins through to the end of the Fifth Dynasty, over several hundred years, there is clear evidence that woodworkers were experimenting with different approaches to coffin construction. This is true despite the fact that already by the beginning of the Old Kingdom, wooden coffins could largely be categorised as one of two general styles. These are referred to as 'plain rectangular', with flat sides and a flat lid, or they were constructed with a more elaborate vaulted lid and a case with panelling on the sides that reflected the niches found in elite estate walls. The latter are therefore often referred to as the 'palace façade' or perhaps more accurately, 'niched façade' or 'enclosure wall' style (Ikram and Dodson 1998: 194-196; van Walsem 2014). In some cases, there is a mix of the two styles, with a plain case and vaulted lid. Few coffins had any type of painted decoration before the Fifth Dynasty. Despite the limited selection of styles, there was considerable variation in the construction techniques used to produce these coffins. The details of four coffins from Gebelein will be explored to help demonstrate some of the possible construction variations before these details are contextualised.

2.1 The construction of Old Kingdom coffins up to the Fifth Dinasty

2.1.1 Coffin Turin S.14061

Coffin Turin S.14061 was found in the northern cemetery at Gebelein by Ernesto Schiaparelli and his assistant, Virgino Rosa, in 1910. It probably dates to the Fourth Dynasty, and provides an example of the 'niched façade' style (Museo Egizio, Torino S.14061; Figure 1). It, along with the individual wrapped in the so-called mummy 'bundle' that was found within, are now housed in the Museo Egizio in Turin (Arbuckle 2018: 198-200; Donadoni Roveri 1969: 153; Fiore Marochetti et al. 2003). The coffin is 104.1cm long, 58.4cm wide, and 68.5cm high.[1] A single sample of wood was removed and identified as local tamarisk (*Tamarix spp.*; personal analysis).[2]

Starting with the case, the carpenters seem to have created the sides by constructing a framework into which short planks were inserted. Two longer planks of wood were used for the top and bottom of the frame for each side, into which shoulders were cut to house the shorter planks. These were inserted vertically into the shoulder with a mortise and tenon system (see Figure 2 for an overview of joinery diagrams).[3] These shorter planks were also edge-joined together, with mortise and loose tenon joints. The planks for the base of the coffin sit in the shoulder of the frame. The corner pieces were carved into a 90-degree angle, and joined to the rest of the frame with half-lap joints. These pieces were then all held together at the corners through a system of ties that were passed and looped through drilled holes, and secured with dowels. Plaster was then used to cover the holes (Fiore Marochetti et al. 2003: 237, fig. 4). Once this basic structure was complete, additional aesthetic pieces were added.

On the front of the coffin, three smaller planks were attached to create two larger central panels, and two narrow panels. On the larger panels, five short bevelled pieces were added with small dowels. For the smaller sections,

[1] In the dimensions given in Fiore Marochetti et al. (2003: 237), the authors report the height of the coffin as 58cm, which is the height of the case only. The measurements reported here were checked in person.

[2] For a discussion of wood analysis techniques, see Arbuckle MacLeod, Creasman and Baisan 2021.

[3] The names for woodworking joints and techniques vary widely. For the purposes of this paper, I have followed the terminology used and described by Geoffrey Killen in Nicholson and Shaw's *Ancient Egyptian Materials and Technology* (2000). For construction diagrams for S.14061, see Fiore Marochetti et al. 2003.

Figure 1: Coffin Turin S.14061. Photograph used with permission of the Museo Egizio, Torino.

two rectangular pieces were carved in a manner that likely represents rolled up door coverings. On the back, only one extra plank was added, without additional elaboration. The coffin shows evidence of being finished, as the majority of tool marks were rubbed away. Unique for coffins from this period, painted decoration was then added. The whole coffin was first covered in plaster and then the background of the panels was painted a yellowish-white, while the edges and raised planks were painted a dark red. In the small side sections, what seems to be red trees were represented below the supposed door-rolls that were also painted red. Darker blocks or bands of colour, perhaps a discoloured red or black were painted on the bevelled additions.[4]

Finally, the lid is lightly vaulted, with two raised edges. It was created by edge-joining three slightly curved pieces of wood with mortise and tenon joints. The short ends of these pieces were each inserted into a thick beam of wood, which had been carved with a semi-circular groove to house the planks, and with lower projections that helped to hold the lid in place.

[4]Some of this decoration was faded and difficult to see even in person. I have therefore relied on some of the observations made by Fiore Marochetti et al. (2003: 237) and Donadoni Roveri (1969: 154).

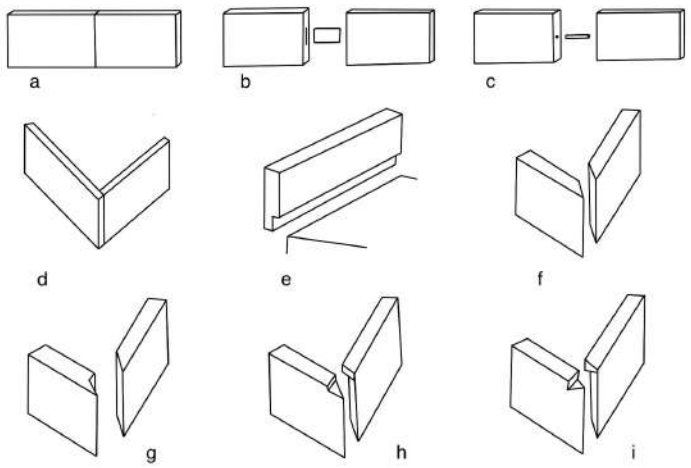

Figure 2: Joinery methods. a) edge joint, b) loose tenon and mortise, c) dowel, d) butt joint, e) half-lap joint, f) simple mitre, g) shoulder mitre, h) simple mitre surmounted by butt joint, i) simple mitre surmounted by half dovetail joint. Image by author.

2.1.2 The coffins from the Tomb of the Unknown

Dating to the Fifth Dynasty, the so-called Tomb of the Unknown was found at Gebelein in 1911 by Schiaparelli and Rosa (Ejsmond, Skalec and Chyla 2020: 109). No names of the tomb owners were found within. The second room of the tomb contained three coffins, a nested inner and outer coffin set, which contained the mummified human remains of an individual, and a third coffin, which held a collection of textiles (Donadoni Roveri 1969: 171-172). These coffins were taken back to the Museo Egizio in Turin, where they continue to reside within a display that mirrors their original placement in the tomb.

The first, outer coffin Turin S.13964 (Figure 3), was made of acacia (*Vachellia nilotica*; personal analysis), a very hard and durable wood from a tree that grows locally in Egypt (Arbuckle 2018: 190, n. 32, Table 2).[5] The coffin is very large, measuring 240cm long, 103cm wide, and 94.6cm high. The carpenters who created this coffin pieced it together from long beams of thick cut tree trunks or branches. The pith and bark are present

[5]Donadoni Roveri (1969: 171) notes that the coffin is made of sycomore wood. I have been able to verify, based on anatomical examination, that the wood is in fact *Vachellia nilotica*.

Figure 3: Coffin Turin S.13964. Photograph used with permission of the Museo Egizio, Torino.

on several pieces, attesting to the use of whole pieces of round wood. Crisp tool marks are preserved all over the coffin, and include saw, axe, and adze marks. Large mortise and tenon-joints were used to edge join the beams for the sides of the coffin, which were then further secured through lashings that appear to be made of rawhide or a similar material. At the corners, a shoulder was cut into the long sides to create half-lap joints. These were also secured with lashings housed in deep troughs. One L-shaped beam was used to serve as both the bottom edge of one of the long sides and one of the outer edges of the base. On the other sides, the base simply abuts the sides. The lid beams are edge joined together in a similar fashion to the rest of the coffin, but are further secured through the use of additional battens, beams that lie across the main lid wood, on the exterior, and were held in place with additional lashings. One of the beams extends past the others, creating what could be a handle, sometimes called a boss or knob. Excluding tenons, the coffin was made from approximately 16 pieces of wood. There

is no decoration on the coffin, but in the base, in between the joints, the presence of red paint was identified through the use of pXRF analysis.[6]

Acacia is a very hard wood to cut, even with today's steel tools. During the Old Kingdom, the tools would have been made of stone and copper (Donadoni Roveri 1969: 43; Ogden 2000: 153). Copper is a soft metal which would have required constant sharpening. Due to the strength of acacia, throughout Egyptian history it was often used for dowels or tenons in coffins of softer wood (Arbuckle MacLeod, Creasman and Baisan 2021: 100; Cartwright 2016). While acacia coffins are not uncommon, I am unaware of any other examples this large. This is just one of a number of elements of construction that make this coffin unique.

Figure 4: Coffin Turin S.13965. Photograph used with permission of the Museo Egizio, Torino.

Coffin Turin S.13965 (Figure 4), which was originally found within the larger coffin, S.13964, was made from long straight planks of Lebanese cedar (*Cedrus lebani*) (Arbuckle 2018: 192-194; Donadoni Roveri 1969: 172). It measures 206cm long, 60.2cm wide, and 67cm high. This wood was nicely finished, so that no visible tool marks remain. The planks were edge joined with mortise and tenon joints, further supported by copper lashings, an

[6]The author has discussed the significance of red painted inner coffin joints elsewhere (Arbuckle MacLeod 2023; Arbuckle MacLeod and Cooney 2019: 292, n. 46), and continues to build up a repertoire of this practice.

unusual choice of material for this purpose. Some plaster or paste material was used to cover over these joints. The carpenters joined the edges of the coffin with a complicated housed shoulder mitre technique. The base connected to the sides through a half-lap joint, with the shoulder cut in the long sides (Donadoni Roveri 1969: 172). The lid of the coffin was vaulted with two raised ends, cut from thicker beams, as is often seen with the 'palace façade' coffins. A curved ledge was cut into these beams, to securely fit the subtly curved planks. There was no surviving decoration on the coffin.

Figure 5: Coffin Turin S.13967. Photograph used with permission of the Museo Egizio, Torino.

The final coffin from the burial chamber demonstrates a third construction style. Coffin Turin S.13967 (Figure 5) was made of sycomore fig wood (*Ficus sycomorus*) (Donadoni Roveri 1969: 172). It measures 208.5cm long, 62.76cm wide, and 66cm high. The case of the coffin was largely dug out from a single large tree trunk, with additional pieces added to the ends and to fill out holes or patches in the knotted wood. The lid was more similar to the cedar coffin, if not as carefully constructed, with slightly curved planks lashed together, which fit securely into ledges cut into thicker raised beams. Tool marks are still visible in multiple areas, suggesting that little effort was made to provide a clean, finished look. Significant amounts of plaster were used on this coffin as well, to fix faults. The rim of the coffin was painted red and a small depiction of a head is visible on one side of the coffin, while an image of a sandal is visible on the end of the lid. Donadoni Roveri (1969: 173) notes that these images almost certainly marked the head and foot end of the coffin (referring to the position of the enclosed body).

2.1.3 Discussion of coffin construction details and society up to the Fifth Dynasty

While these coffins are all from Gebelein, three from the same period and tomb, they display significantly different approaches to constructing rectangular coffins. Although there are relatively few surviving coffins from this early period, several contemporary collections show a similar variety in joining techniques. In the excavations of Petrie and Mackay at Tarkhan, the excavators do not, unfortunately, provide a detailed description of each coffin, but they do provide a summary of all the different construction techniques used in the different examples. From the Third to Fifth, with, admittedly, a few from the Sixth Dynasty, they note that some coffins were short, some were long, some plain, some panelled (niched façade), and the corner joints exhibited a combination of butt joints, half-lap joints, simple mitre, shoulder-mitre, and double shoulder-mitre joints, the plain mitre surmounted by a butt joint, and the plain mitre surmounted by half-dovetail joints, held together with a combination or selection of dowels, mortise and tenon joints, and lashings (Petrie and Mackay 1915: 14-16, 23-30). Donadoni Roveri (1969: 50-52), in her discussion of coffins from the Old Kingdom, provides a more detailed overview of the many construction variations up to the Fifth Dynasty, including early coffins from Gebelein, Giza, Saqqara, and Tarkhan. She also notes that there seems to be significant variation in the size of coffins from this period as well, though with a tendency to lengthen over time, particularly from the Fourth Dynasty on.

Other unique construction techniques include plywood walls made from foreign softwoods in a Third Dynasty Coffin from Saqqara (Arbuckle 2018: 184; Donadoni Roveri 1969: 54-55; Lucas 1936: 193); a double lid, one flat, one vaulted, in a Fourth Dynasty niched façade coffin from Giza (Cairo JE 67567) (Arbuckle 2018: 202; Donadoni Roveri 1969: 155; Reisner 1935: 72); a two metre long Fifth Dynasty cedar niched coffin from Giza (Cairo JE 49695) (Arbuckle 2018: 202-203; Donadoni Roveri 1969: 155; Junker 1934: 178-179); and plain mitre joints with butt joints at both the top and bottom of the corners from a cedar coffin from Giza likely dating to the late Fifth or perhaps early Sixth Dynasty (Kunsthistorisches Museum, Vienna ÄS 7512) (Arbuckle 2018: 185-186; Haslauer 2009: 162-163).

While the wood from coffins of this period has not been commonly analysed, it is clear that the materials used, and their associated values, are similar to those from other periods (Arbuckle 2018). Local timbers are the most common, particularly sycomore fig, acacia, and tamarisk. Local

wood coffins can be finished well and used to create elaborate high-quality objects, as exemplified by the tamarisk niched façade coffin, S.14061. In other instances, local wood coffins are not finished as carefully, as seen with the coffins S.13964 and S.13967 from the Tomb of the Unknown. Coffins made from imported timbers, however, of which Lebanese cedar is by far the most common, are always well constructed and finished, as with S.13965. This suggests that only skilled carpenters would have had access to imported materials, perhaps procured through the assistance of well connected, wealthy patrons. The combination of local and imported wood coffins in the same tomb, for the same owner, suggests that there was no negative association with the use of local woods for the wealthy; nevertheless, when there is a set of coffins in which one is made of local wood and the other imported, the outer coffin is always made from local wood, while the inner is from imported (as also noted by Donadoni Roveri 1969: 75).

The religious significance of the form of coffins from this period has been much debated. As noted briefly above, most scholars agree that already by the Early Dynastic Period, the rectangular coffins were considered to be representations of a sacred home, an eternal dwelling for the deceased, where they could receive offerings for the afterlife from their survivors. This is particularly clear for the coffins with the niched façades, which almost certainly reflect elite estate enclosure walls, which are also reflected in other funerary objects and architecture (Bárta 2011: 53-54; Dodson and Ikram 2008: 136, 142-143; van Walsem 2014: 12-13). While they are rarely decorated, the few early painted coffins that survive include representations of patterns or trees, likely reflecting door rolls, shutters, wall decorations, and the trees growing along the outside of the walls, as reflected in Turin S.14061 (for further discussion see Marochetti et al. 2003; Arbuckle 2018: 203-204). The plain rectangular coffins are less obvious reflections of dwellings, but I believe that this meaning must have become associated with them if it was not part of the original intention, as they are found buried among the façade examples, and probably represent a simpler representation due either to stylistic choice or economic restrictions. Also quite plausible is van Walsem's (2014: 12) interpretation that these are reflections of a single room within a house, and therefore still representative of a living space. The vaulted lid is likely a reference to the 'pr-nw' style of temple (Ikram and Dodson 1998: 195; see however van Walsem 2014), though it may have been added to emphasise the sacred nature of the coffin rather than to suggest that it is a representation of a temple itself.

The idea that the coffin was meant to be an eternal sacred dwelling was therefore well established by this time, and the two main styles are found throughout Egypt, even if in limited numbers, demonstrating that the general practical and religious purpose of the coffin and the socially acceptable forms or styles were fairly universal. However, despite this, the variety of approaches to constructing this limited repertoire shows that when it came to coffin construction, there were no established, standardised techniques for production. Each workshop, and perhaps each individual, simply created the rectangular, sometimes niched object requested by their patron using whatever approach appealed to them individually. Again, looking at the Tomb of the Unknown, here are three separate coffins in the same room of a tomb, all constructed using different joints and methods. This suggests that at this time, there were few, if any, elite workshops or carpenters that specialised in the production of wooden coffins.

One caveat to keep in mind with this argument, is that the majority of the evidence comes from the provinces, as very few wooden coffins from around the royal necropolises have survived from the early Old Kingdom – though the few that have would seem to follow this pattern, as noted above. The royal workshops were certainly not yet focused on this medium, as there is evidence to suggest that inner wooden coffins were not placed in the stone sarcophagi of kings until the end of the Fifth Dynasty, with Unas. His stone sarcophagus, unlike those that came previously, was large enough to contain a wooden coffin, and had grooves carved inside that would have enabled the lowering of the coffin in place (Donadoni Roveri 1969: 75; Ikram and Dodson 1998: 195). Unfortunately, only fragments and very exceptional examples of any royal wooden coffins have been found up until the Seventeenth Dynasty, with none surviving from the Old Kingdom. Keeping this information in mind, it is necessary to consider the broader social and religious context at work in Egypt up to this point to better interpret the remaining evidence.

Up until the Fifth Dynasty, elite social status in life was based on one's relationship to the king. Non-royal tomb biographies express this clearly, where, as James Allen (2006a: 13) states, "the individual's sense of personal identity and self-worth is measured in terms of his relationship to the king". High officials were also usually important members of the royal family, ensuring that the elite community remained quite small (Bárta 2020: 336; Willems 2014: 23). While debated, this social power seems to have continued into the afterlife (see however, Smith 2009; 2017: 166-270). As argued most recently by Julia Troche (2021: 3; 2022: 536), although funerary materials make it clear that all individuals in ancient Egypt had access to an afterlife

from at least the Predynastic Period, it seems to have been difficult to attain full privileges and *elite* status after death without the assistance of the king. This may be reflected in the desire for the king to express support through tomb position or materials. Tomb inscriptions suggest that the best necropolis locations and funerary equipment were under the direct control of the king at this time. This is particularly visible in the tombs of Giza and Saqqara, the most desirable cemeteries built close to the pyramids of the kings (Allen 2006a: 13; Bárta 2020: 332). Violaine Chauvet (2004: 2) has also discussed how the "homogeneity in the organization and structure" of private tombs of the Fourth Dynasty reflect the control and "authority" of the king and central administration.

One inscription that is particularly notable for this purpose is the *ḥtp-ḏj-nswt* formula. For example, a Fifth Dynasty inscription from Saqqara states, *ḥtp-ḏj-nswt rḏj n.f jz.f pn qrs jm.f* "An offering that the king has given, he [the deceased] having been given this his tomb and buried in it" (Allen 2006a: 14; Mariette 1885: 283-284). It therefore seems likely that this initial use of the *ḥtp-ḏj-nswt* inscription could be used to describe goods or whole tombs that were given to individuals by the king from his own property (Allen 2006a: 14; Goedicke 1970: 37). Whether or not these "offerings" were always meant literally, it was clearly important for at least elite individuals to communicate that they had the support of the king in their funerary assemblage. This was likely because the king was seen as the ultimate divine intermediary at this time, and only he could *guarantee* that the deceased would be attended by funerary gods such as Osiris and Anubis (Bárta 2011: 93-94; 2013: 259; Hornung 1997: 313). This is also expressed through the use of the *im₃ḫw ḫr* inscription, used in particular to describe the individual as "valuable" to the king (Allen 2006a: 11-14), and therefore deserving of assistance.

Assessed in this light, it is clear that the small community of the upper elite during the early Old Kingdom were most concerned with acquiring a well-located and equipped tomb that demonstrated that they had the eternal support of the king. While in some cases this meant receiving funerary materials directly from the central administration, in others it was meant to reflect that they were at least seen as a valuable member of the court, worthy of divine assistance after death. While direct royal support was required, the elite communities remained limited. The few coffins that have been found in the vicinity of royal burial grounds are exceptionally fine, and usually made of imported materials (as suggested again by Cairo JE 67567 and JE 49695), but are unique representations of different types of joints and

approaches to crafting an eternal dwelling that aligned with the religious requirements. There does not yet seem to have been enough demand for coffins for a tradition of practice to have emerged. While the elite were centred at court, there was also no potential for further reaching networks of patronised workshops. By the end of the Fifth Dynasty, however, this was already starting to change. The king himself seems to have had an inner wooden coffin, and there are hints that more elite were beginning to be buried in the provinces – even the cedar coffin from the Tomb of the Unknown may hint at the movement towards a breakdown in the regular royal control and desire of the elites to be buried near the king. Moving into the Sixth Dynasty, there is a definitive shift seen in many elements of funerary culture, and an associated transformation in the approach to coffin construction.

3 Standardisation in coffin construction

3.1 The construction of the coffins of Mery-ib

To explore the significant shift that we see in coffin construction from the end of the Old Kingdom through to the end of the Middle Kingdom, we will start by examining one of the earlier models of its type: the outer and inner coffins of Mery-ib discovered during the 1912-1913 excavations of Hermann Junker at Giza, dating to the Sixth Dynasty, and now in the Kunsthistorisches Museum in Vienna (Vienna ÄS 7803, 1 and 2) (Arbuckle 2018: 224-225; Donadoni Roveri 1969: 159-160; Haslauer 2009; Junker 1947: 140-151).[7] The outer coffin (Vienna ÄS 7803, 1) was rectangular with a flat lid, made of sycomore fig wood, and Junker notes that at the time of discovery, it had been smashed, likely during an ancient robbery (Junker 1947: 140). In its partially preserved state, it measured 2.35m long, 0.67m wide, and 0.68m high (Donadoni Roveri 1969: 159). It was constructed from irregular long planks, edge-joined with a combination of mortise and tenon joints and dowels. The corners were joined with plain mitre joints surmounted by butt joints (Haslauer 2009: 162). These corners were held together with ties, which sat in semi-circular grooves that were further supported with dowels and then covered over with plaster. The lid was very fragmentary

[7]It should be noted that the coffins of Mery-ib are the only examples described in detail that the author has not personally examined. The present descriptions are therefore dependent on publication texts and photographs.

when found, and is not described further in publications. There was a clear effort to remove tool marks, though some still remain in the soft wood. The craftsmen then applied a thin layer of plaster over the surface (Haslauer 2009: 159).

All four sides of the exterior of the outer coffin were carved with a single horizontal line of inscriptions, which were then filled with a blue paste. On the long sides this consisted of a *ḥtp-ḏj-nswt* offering formula that appealed to the king and Anubis, though the beginning is damaged on the East side, while the short sides express the titles of the deceased (Donadoni Roveri 1969: 159-160; Junker 1947: 142). The text further marks Mery-ib as *imꜣḫw ḫr nṯr ᶜꜣ*, a sentiment that Allen translates as "worthy of being associated with the great god", which can relate either to the deified king, Re, or Osiris. The inscriptions are written using what is referred to as 'mutilated' hieroglyphs – dangerous glyphs have been substituted with less threatening creatures, and those that could not be substituted, such as the viper, have been disabled – in this case, beheaded. The area where one might expect to see *wadjet* eyes has been damaged, but on the north short side is an image of the head (*tp*), and on the south side, an image of two legs (*rdwy*).

The inner coffin (Vienna ÄS 7803, 2) was made of long, straight, wide boards of what Junker states is cedar wood (Junker 1947: 143). It is preserved at 2.13m long, 0.585m wide, and 0.53m high (Donadoni Roveri 1969: 160). The lid for this piece does not survive, and Junker notes that it may not have had one – perhaps allowing the outer coffin lid to do double duty (Junker 1947: 144), but due to the damaged state of the outer coffin, this cannot be said for certain. The long sides of the coffin were each constructed from a single board of cedar, while two were needed for each of the short sides that were edge-joined with dowels. As with the outer coffin, at the corners, the pieces were joined with long plain mitre joints, surmounted by a butt joint, again held fast with ties and dowels, sitting in grooves, with a small amount of plaster added over top of these joints (Haslauer 2009: 159, 162). A clear attempt at smoothing the wood was made, though some saw marks are still visible. Originally three supports were added to the exterior base of the coffin, but these are no longer present (Haslauer 2009: 159).

The outer coffin also had a single horizontal row of hieroglyphs on each exterior side, which had originally been filled with blue paste (Donadoni Roveri 1969: 160). The long sides bear *ḥtp-ḏj-nswt* inscriptions that are very similar to the outer coffin, calling on the king and Anubis for a burial. A pair of *wadjet* eyes are carved below the text on the eastern exterior

side. On one of the short ends, however, Mery-ib is noted as being *im3ḫw ḥr Ptḥ-Skr* "worthy of being associated with Ptah-Sokar". On the north, a head in profile is carved into the wood, with a pair of legs in its place on the south. Unlike the outer coffin, the interior of the inner coffin, on the east wall, is also inscribed with lists of offerings carved in 47 vertical columns. All inscriptions, both interior and exterior, were mutilated (Junker 1947: 148). Other than the decorations described, the wood was left bare so that the cedar wood grain was visible.

3.2 The construction of the coffin of Minhotep

Figure 6: Coffin Turin S.8919. Photograph by Nicola dell Aquila, used with permission of the Museo Egizio, Torino.

A coffin belonging to an individual named Minhotep was discovered in Asyut by Ernesto Schiaparelli in 1908, and has been dated to the late Eleventh or early Twelfth Dynasty (Arbuckle 2018: 234-235; Zitman 2010: S10Tor, 218-219). It is now in the Museo Egizio in Turin (Turin S.8919, Figure 6). It was constructed from a hardwood species that has not yet been identified, but is likely a local wood. It currently measures 187.8cm long, 42cm wide, and 48cm high (with lid). The long sides of the coffin are mainly made from one large piece of wood, and one smaller piece. The shape of the pieces is the same for the front and back, suggesting that they were cut from the same plank or trunk of wood. The main pieces had a number of faults, and many smaller patches of wood were then used to fill these. These have all been attached with dowels and heavy amounts of plaster. The four corners of the coffin were attached with a plain mitre surmounted by a butt

joint. They were held in place with dowels. Four planks or supports were added to the base of the coffin. The flat lid was also heavily patched, and originally three battens were added to the underside to help hold it in place on the case, though only one remains. The inner joints of the coffin were painted red, along with the rim of the case, before additional decoration.

The coffin has been covered over with a thin layer of plaster, before being painted with a yellow background. On to this, a horizontal row of hieroglyphs has been painted in a greyish-blue pigment, outlined in black, on all four sides and down the centre of the lid. On the front and back sides, four additional vertical columns have been added, and on the short sides, one column has been added. This style of horizontal and vertical texts is what has been referred to as 'Asyut Type I' coffins (Zitman 2010: 238-247). The hieroglyphs are not particularly well drawn, are damaged in some areas, and some seem to include errors in execution, while the vipers are mutilated (Hannig 2006: S10Tor, 855-856); nevertheless, the inscription clearly includes a *ḥtp-ḏj-nswt* offering formula that appeals to Osiris on the front and Anubis on the back, and mentions a shortened and standard list of offerings. One of the vertical inscriptions mentions that Minhotep is *imꜣḫw ḫr nṯr ꜥꜣ*, while other gods are also entreated or mentioned.

3.3 The construction of the coffin of Rhurawsen

Figure 7: Coffin S.8656. Photograph by Nicola dell Aquila, used with permission of the Museo Egizio, Torino.

Finally, the Twelfth Dynasty coffin of Rhurawsen (Turin S.8656, Figure 7) was found in the Tomb of Shemes in Asyut by Ernesto Schiaparelli in

1908, and has been dated to approximately the reign of Senusret I (Kahl 2019: 17; Zitman 2010: 226-227). It is on display at the Museo Egizio in Turin. It measures 179.8cm long, 37.8cm wide, and 48.8cm high. It was constructed from a local hardwood species, though unfortunately this wood has not yet been scientifically identified. For the sides, base, and lid of the coffin, craftspeople joined irregularly shaped planks of wood, cutting and joining the pieces like a jigsaw puzzle. Excluding dowels, approximately 45 pieces of wood were used for the construction. These pieces were edge joined with dowels to create the sides, and then joined at the corners with a plain mitre surmounted by a butt joint, further held in place with more dowels. Battens were used to add support to the underside of the lid.

To decorate the coffin, artists first laid down a paste preparation layer, which allowed them to fill and cover up any remaining patches or gaps in the joinery. Then red paint was applied to the rim of the coffin case, before a red-orange background layer of paint was applied to all the exterior sides, with a light-yellow frame painted at the corners of the case and lid. A double row of horizontal hieroglyphs was then painted in blue, outlined in black, along all four sides of the exterior and down the centre of the lid. Three additional double columns were added to the front and back of the case, and a single double column was added to both short sides. The hieroglyphs include the *ḥtp-ḏj-nswt* offering formula, which begged the assistance of Anubis, and then multiple other gods including Geb, Nut, Shu, and more, to ensure that the deceased had all they required in the afterlife, including a good burial in the western necropolis. The vertical columns mention that the deceased is *imꜣḫw ḥr nṯr ꜥꜣ*, in addition to other gods. Finally, a pair of *wadjet* eyes were added to the exterior head-end of the coffin, on a lighter yellow framing square. The interior has a paste preparation layer, but no additional decoration.

3.4 Discussion of the construction of late Old Kingdom to Middle Kingdom coffins

The general approach to construction seen in all four of these coffins is also reflected in many more examples that survive from the late Old Kingdom through to the end of the Middle Kingdom. The vast majority of the hundreds of surviving objects from this period are long rectangular coffins, connected at the corners by plain mitre-joints surmounted by either butt joints or half-dovetail joints. The lid tends to be flat, supported by battens on the underside. Usually, the sides simply abut the base, though in more

elaborate instances, a half-lap joint could be used. The standard approach is seen in coffins made of imported or local materials, belonging to high and lower middle ranking individuals of all genders, and coming from sites from all over Egypt. The mitre joint for the corners has in particular already been acknowledged as an "exceedingly common" construction element for coffins from throughout the Middle Kingdom (Willems 1996: 34).

Additional examples of this construction style include the First Intermediate Period sycomore fig coffin of Khuit from Asyut (British Museum EA 46634) (Arbuckle 2018: 227; Davies 1995: 146; Zitman 2010: 92ff), the cedar wood coffin of Ipihaishutef from Saqqara likely dating to late First Intermediate Period or early Middle Kingdom, which included a selection of Pyramid Texts in the decoration (Chicago OIM E12072) (Allen 2006b: Sq1Ch; Arbuckle 2018: 229-230; Lapp 1993: Coffin Sq11; Manning et al. 2014; Willems 1988: Coffin Sq1Ch). The inner and outer coffins of Djehutynakht from Deir el-Bersha, from the late Eleventh or early Twelfth Dynasty demonstrate the mitre joint surmounted by a thin butt joint, but with the half lap variation to connect the base. These coffins also have extensive interior decoration with Coffin Texts and the Book of Two Ways (Boston MFA 20.1822-27, 21.962-63) (Arbuckle 2018: 236-238; Berman 2009; Willems 1988: 70-72). The standard approach, with a few creative patches, was used for the cedar wood coffin of Mentuhotep from Thebes, dating to the Twelfth Dynasty, which also included 'star clock' decoration (BM EA6655) (Arbuckle 2018: 241-243; Davies 1995: 147; Willems 1988: 115-116, 237). In the late Twelfth and Thirteenth Dynasties, some variations of the lid of the coffin start to be seen, reflecting the vaulted or gabled lid style, similar to what was seen in the Old Kingdom coffin Turin S.13965 described above, but the construction methods for the case remained standard. This combination is seen in the Thirteenth Dynasty sycomore fig coffin of Ikhet (MMA 32.3.430a-b) from Thebes (Arbuckle 2018: 253). It should also be noted that largely undecorated coffins, which are very difficult to date, also exhibit the standard construction technique. This is seen for example on a sycomore fig coffin that was roughly covered with a brown wash on the exterior from Asyut (Turin S.14429) (Arbuckle 2018: 256).

In addition to the few variations noted above, several somewhat exceptional examples from Lisht are worth a brief mention. The Twelfth Dynasty coffins of Sithathor (Metropolitan Museum of Art 14.3.65a, b) and the (probably) slightly later coffin of Ibsenhotep (Metropolitan Museum of Art 14.3.64a, b) still largely follow the standard construction style, however their corner mitre joints are surmounted by a variation on the dovetail joint,

in that it curved or hooked downwards (Arbuckle 2018: 244). This would not have provided a significant structural advantage, and so may have been an attempt to add a unique detail into a standardised tradition. The coffins of Senebtisi, from a late Twelfth Dynasty so-called 'Court Type' burial, also serve as standard examples with a few variations (Arbuckle 2018: 248–50; Grajetzki 2014: 19; Lapp 1996: 82). The outer coffin of local wood was standard but with a vaulted lid, while the inner cedar coffin had only plain mitre joints. An important variation in the decoration of this coffin is the use of gold applied to the edges of the coffin, and a lack of a *ḥtp-ḏj-nswt* inscription, replaced by an invocation to Nut (Grajetzki 2014: 21-22, 34-35; Mace and Winlock 1916). This assemblage also included a third, very fragmentary anthropoid coffin, an early example of the transformation that would become dominant in the succeeding period. While exceptions and slight variations such as these do of course occur, the evidence demonstrates that a general approach to the construction of rectangular coffins was known, widespread, and continued unbroken from the Sixth through the Thirteenth Dynasties.

The types of wood being used are similar to what was seen previously. The majority of coffins from this period are made of local Egyptian wood. These local wood coffins necessitated some additional preliminary ingenious joining, as the carpenters had to fit the irregular shaped pieces of twisted trunks and branches together to create the flat sides. The imported wood coffins, which are most commonly identified as Lebanese cedar, tend to include only a few wide, straight boards; nevertheless, once the flat rectangular walls were created, the sides and corners were again usually attached using a mitre joint surmounted by a butt or dovetail joint, as outlined previously. As with the previous period, when a coffin set included one coffin made of local wood, and another of imported, the local wood was used for the outer coffin, while the inner was made of imported timber. The imported wood coffins were also often left bare, without a plaster or paint base beneath the inscriptions, while local wood coffins at this point were usually fully plastered and painted, at least on the exterior.

Alongside these patterns in coffin construction, by the Sixth Dynasty, standardised coffin decoration elements had emerged. At first, this decoration consisted of a pair of *wadjet* eyes on the exterior of the coffin, generally at the head end, providing the deceased within the opportunity to look out at their tables of offerings. A horizontal band of hieroglyphs, usually the *ḥtp-ḏj-nswt* offering formula, was then added along the exterior as well, often referring to Osiris and Anubis alongside the king. These elements

would become the standard feature of coffin decoration, often referred to by scholars as Willems' 'Type I', or Lapp's, 'Sixth Dynasty Type' (Lapp 1993; 1996: 75-76; Willems 1988: 122-127). Occasionally, the interior of the coffins might also include offering lists and an image of a false door (Lapp 1996: 76). Soon the decoration became more complicated, and regional variations developed quite quickly. Decoration increased in complexity through the Middle Kingdom, with, as noted by Willems (1988: 237-240), a major shift in the Twelfth Dynasty, apparently aligning with changing political and administrative practices. Numerous scholars have studied the elaborate lists of spells found on the exterior and interior, the selections from the *Pyramid and Coffin Texts*, the architectural elements, false doors, and object friezes that came to cover many of the coffins. These help to provide an estimated date and provenance for decontextualised pieces, though dating based on style is still notoriously difficult (Arbuckle 2018: 220-221; Grajetzki 2016; Hannig 2006; Ikram and Dodson 1998: 196-199; Lapp 1993; 1996; Smith 2017; Willems 1988; Zitman 2010). Despite all these variations, the decoration still almost always included the *wadjet* eyes and a variation of the offering formula (Lapp 1996: 84; Willems 1988: 120).

Scholars are not entirely united in their interpretation of the elements of decoration. Most agree that the initial coffin decoration, the offering formula and the *wadjet* eyes, emphasise the continued position of the coffin as a sacred dwelling; the texts request the position in the West and the offerings necessary to support their eternal life, with the eyes added to the coffin so that the deceased can look out at offerings. Gradually, however, as described by Willems (1988), the non-royal deceased starts to include royal insignia within depicted offerings and the object friezes, with more detailed representations of the full burial ceremony being described, and in rare cases depicted, within the coffin decoration. Rather than suggestive of attempting to directly take on the royal powers of the Egyptian king, these elements are more closely associated with Osiris as the king of the netherworld. As Willems states, "the whole decoration of coffins of the period concentrates on the representation of rites aiming at investing the deceased with the kingship of the Netherworld…and his role as a creator god". While elements of decoration still relate the idea of a dwelling, the coffin has shifted from being an elite house to the royal palace of Osiris (Willems 1988: 242). Placed within its social and religious context, these developments demonstrate a significant shift in Egyptian belief and funerary systems.

As noted previously, up until the Fifth Dynasty, the Egyptian people, particularly the limited elite, were dependent on the king for an elevated status in the afterlife. They were also often dependent on the ruler for their place in the necropolis. During the Fifth Dynasty, however, high officials were no longer always members of the royal family, and elite individuals start to build their monumental tombs near their homes in the provinces, rather than in the capital (Bárta 2020: 323-333; Willems 2014: 23-24). By the late Fifth or early Sixth Dynasties, provincial administration had crystallised into the position of the nomarch (Willems 2014: 28-29), who often also took on religious titles and duties, and elite burials in the provinces increased (Bussmann 2020: 476; Willems 2014: 28-29, 32). Tomb biographies now refer to individual deeds, and more commonly reflect the tomb owner's ability to provide funerary materials from their own wealth, which also relates to much more variability in tomb design and quality of building materials (Bárta 2020: 359; Bussmann 2020: 474-475; Chauvet 2015: 314). The reference to Osiris is also seen in private tombs starting in the Fifth Dynasty, and it is clear that individuals could receive goods in the afterlife directly from the god at this point, rather than from the king (Bárta 2013: 268; 2020: 357); moreover, the *imꜣḫw ḫr* inscription can be found naming local deified individuals, as opposed to the king or even other funerary deities, demonstrating the ability of non-royal individuals to directly call on a wider range of spiritual entities to assist with obtaining an elite afterlife (Troche 2022: 538).

Returning to coffins, in the Sixth Dynasty the *ḥtp-ḏj-nswt* formula moves from tomb walls on to coffins (Lapp 1996: 75). This much broader use of the inscription would suggest that by the end of the Old Kingdom, in these contexts, it was usually used figuratively rather than literally (see also Barta 1968: 278). This allowed the coffin owner to still call on the king's name or his position as an intermediary to gain the gods' assistance in acquiring the goods necessary to attain an excellent position in the afterlife, perhaps now even without royal permission. This type of expansion on what was originally a royal prerogative would soon develop even further, with the beginning of the Coffin Texts.

The Coffin Texts seem to have developed out of the Pyramid Texts. These funerary inscriptions were first recorded on the inner walls of the Fifth Dynasty pyramid of Unas. These spells were, as Mark Smith (2009: 1) summarises, "intended to bring about the resurrection of the king after his death and allow him to ascend to a new plane of existence in the sky, while at the same time providing his sustenance and other material needs".

While referencing the solar gods, they also identified the deceased king as an Osiris, and helped them transform into an *akh*, a transfigured, powerful being (Smith 2009: 2; Willems 1996: 83, 375; Zago 2022: 80). While a few of the Pyramid Texts were transferred largely unchanged to the walls of the coffins, some were altered and new spells were added, including a number of elements that show non-royal concerns, like joining with one's family in the afterlife (Allen 2006b). The need to become an Osiris and an *akh*, however, was still of central importance (Zago 2022: 80). When Coffin Texts first appear is debated, but there is evidence to suggest that they too, and other similar religious texts, started as early as the Sixth Dynasty (Smith 2009: 2, 2017: 172-174; Zago 2022: 76), though examples are much more extensive and numerous in the Middle Kingdom.

All of these major shifts in political organisation, administration, and religion, occur at relatively the same time as the standardisation in coffin construction. Many of these other transformations have been associated with the concept of 'democratisation'. Initially, this term was used to argue that non-royal Egyptian people did not have access to a royal or Osiride afterlife until the First Intermediate Period (see for discussion Smith 2009; 2017). It is now clear that these changes had occurred within the Old Kingdom, along with many other developments that saw power and religious access opening up to a much larger proportion of ancient Egyptian society, as described above. I argue that coffin construction standardisation is part of these developments as well. As power and wealth became distributed to nomarchs, who in turn would have been supporting more localised administration, centralised control of funerary materiality and expression also broke down (see also Bárta 2013: 275). As individuals had more private wealth to spend on tomb assemblages, more elite craft workshops would have been required to meet increased demand.

The coffin, which had already been established as a significant part of the burial, was more affordable than stone sarcophagi, but depending on the timber used for construction could be both an exceptional, upper elite object, or somewhat more affordable for the lower elite. As the eternal dwelling of the deceased, they were the perfect medium to display new means of access to an elite afterlife including the *ḥtp-ḏj-nswt* offering formula, offerings lists, and eventually the Coffin Texts. The earliest examples come from Giza and Saqqara, where enough demand would have allowed craftspeople to develop what they saw as the best option among the available construction methods. As the elite moved out to the provinces, craft workshops moved with them, along with the now-established knowledge of how to create a

standard wooden coffin, and coffin numbers increased rapidly. Carpenters at these workshops would have been able to create elite cedar objects for their patrons, training the succeeding generations, and perhaps constructing local wood varieties for the slightly less affluent. This would have enabled the establishment of a broader community of practice, contributing to the spread of coffins throughout society, and establishing a standardised, universal approach to production.

What is particularly remarkable, is that once these workshops and the tradition of practice was established by the carpenters, they seem to have remained intact for centuries. As a number of scholars have argued, these initial shifts in religious and economic access in the Fifth and Sixth Dynasties were at least associated with, if not partially responsible for, the weakening social power of the king (Bárta 2020: 361; Troche 2022). Eventually, due to a number of factors, united kingship would breakdown, leading to the establishment of several different rulers and local power structures that characterise the First Intermediate Period. This is seen as a time of significant experimentation and change, both social and material, and many of the innovations would remain after the reunification of Egypt in the Eleventh Dynasty (Moreno García 2022). Some of the main elements of coffin decoration remained and regional variations were already developing (Grajetzki 2016), but the standard approach to coffin construction endured.

Throughout the Middle Kingdom there were a number of political shifts, and religious ideas continued to develop. As already noted, some of these changes are expressed in coffin decoration and inscriptions. Regional variations are seen along with a much more direct assumption of Osiride powers, with significant shifts in the Twelfth Dynasty. Centralised royal power would again break down in the Thirteenth Dynasty, and Egypt would enter into the Second Intermediate Period. Throughout all of these major changes, however, coffin construction largely remained standard, other than the return to a vaulted lid in some contexts. This suggests that the practices of different carpentry communities remained largely unaffected by the major religious and administrative changes impacting the elite. Their approach would not change dramatically until the Second Intermediate Period when the anthropoid coffin became the popular form (Arbuckle MacLeod forthcoming; Miniaci 2011). At this time the less numerous examples of rectangular coffins also demonstrate a wholly new construction approach – corners joined with dovetail and finger joints (as seen for example in the coffin of Teti MMA 12.181.302a,b), finally dropping the mitre joint that had dominated for generations.

4 Summary and conclusions

Piecing together the evidence for coffin construction from the Old Kingdom is a difficult task, particularly for the earlier periods. This is partially due simply to issues with preservation, but was exacerbated by a lack of interest in undecorated coffins by both early excavators who often would not recover such objects, and by the succeeding scholars who have traditionally been more interested in the beliefs reflected in significant inscriptions than coffin materiality. Nevertheless, the evidence that does remain makes it clear that coffin construction techniques were variable up until the Sixth Dynasty. Even coffins created for the same tomb owner, such as those from the Tomb of the Unknown, portray a variety of construction choices. This has been shown to be associated with a time that the Egyptian elite were focused on obtaining the favour of the king, hoping for a place near him in the royal necropolis, and in some cases even receiving their funerary objects from the ruler. While it was possible for all Egyptian people at this time to obtain a home in the afterlife, it seems likely that only the king could guarantee the assistance of funerary gods in obtaining a perfect elite position after death. While the elite could, and did, construct wooden coffins in this period, there does not seem to have been enough demand for a standardised practice to develop. Why this should be the case is somewhat elusive, though it may be related to the fact that the king himself did not yet consider the wooden coffin a necessary element of the funerary assemblage, and at this time the elite were too focused on how to acquire royal support to develop such means independently.

In the Fifth Dynasty, however, power was shifting. The king adapted the wooden coffin for his own means, thus demonstrating royal adoption of a well-established non-royal tradition. It is difficult to say whether the rising importance of the coffin for the elite around the capital inspired the king to decide to add this object to his practice, or whether its sudden royal adoption caused elite demand to rapidly increase – a combination is perhaps the most likely. In any case, after this point, by the Sixth Dynasty at the latest, coffin construction communities had developed a standard means of producing the wooden coffin. This object was now the main medium for the *ḥtp-ḏj-nswt* inscription, and, relatively soon after, the *Pyramid and Coffin Texts*, all expressions of independent means of attaining an elite, divinely supported life after death.

During the First Intermediate Period, amid political upheavals and significant artistic and administrative change, the workshops remained.

The carpenters continued to produce coffins, maintaining their traditions, and training their successors in the proper approaches to their practice. This adds to the body of growing evidence to demonstrate how much of the day-to-day business of the ancient Egyptian world continued largely uninhibited during the First Intermediate Period. After the reunification of Egypt, under additional political changes, throughout the reorganisation of the nomarchs, and even as new conflicts emerged to threaten a politically united Egypt once more, the carpenters continued to build coffins as they had for generations. Developments in the Coffin Texts show that the rituals associated with coffins and the elite funerary process continued to transform, focusing ever more on the association of the deceased with Osiris, but this does not seem to have had a significant impact on the approach to construction, with specific exceptions. It is only in the Second Intermediate Period, when both material and religious demands necessitated a significant shift in the forms of coffins, that carpenters finally adopted a new tradition (Arbuckle MacLeod forthcoming).

This long history of coffin construction helps to demonstrate how focusing on technologies and materiality can help to demonstrate an alternative history to one based on the changing fortunes of kings and conquerors. Wooden coffins, though more often than not employed for the elite, reached enough of the population to serve as examples of workshop resiliency even when the highest echelons of society were experiencing turmoil. While this discussion covers only the broadest of construction choices, a more nuanced picture of working-class craftspeople no doubt lies in additional details, some of which are noted above. However, while coffin materiality as an academic pursuit is growing in popularity, a majority of publications continue to overlook its value. As more examples are assessed, it will be possible to not only better understand which production practices were the standard, but also to question why certain carpenters either accepted this tradition or chose to create exceptional, unique pieces, providing us insight into the minds of a vast sub-section of Egypt's non-royal society.

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