



## LABELING ANCIENT EGYPTIAN COMPLEX-MEDIA VARNISHES AS “IMPERIAL”

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### ABSTRACT

*The appearance—and subsequent disappearance—of complex-media varnishes in ancient Egypt coincides chronologically with the rise and fall of Egypt’s imperial ambitions in Asia, and analysis of the constituent oleoresins suggests this is no coincidence. It is therefore suggested that these varnishes be labeled as “imperial,” a useful contribution not only to the history of ancient Egyptian power and trade, but also to ancient Egyptian art and art history in general.*

The first use of black varnish in pharaonic times is linked by Taylor<sup>1</sup> to the appearance of coffins with a black background and the beginning of Year 7 of the reign of Hatshepsut. Serpico and White<sup>2</sup>, following their study of a series of varnished objects, suggest that yellow varnish was also introduced during that regnal year. One might then propose a link between the appearance of these varnishes and Hatshepsut’s expeditions to the land of Punt, particularly as her Deir el-Bahari temple reliefs show the bringing to Egypt of *sntr* trees<sup>3</sup> and their resin. We now know this resin not only to be one of the ingredients of ancient Egyptian varnishes, but also to have consisted (at least at Amarna) of an oleoresin issued from a *Pistacia* tree species such as *P. lentiscus* (commonly known as mastic) or, more probably, *P. atlantica* (the Atlas mastic).<sup>4</sup>

Despite all this, however, it seems likely that the art of complex<sup>5</sup> varnish-making was instead encountered by Egyptians during their expansion in Asia. This art could have indeed been invented in Palestine, where resinous *Pistacia* species are plentiful, or further afield in Mesopotamia, where technological advances in this area were numerous. It may also be the case that once ancient Egyptians learned how to fabricate complex tripartite varnishes, *sntr* brought from Punt or elsewhere was from that time forward not only assigned to “incense”-burning but also to “varnish”-making—a speculation that needs demonstration but does fit adequately with the historical appearance of such varnishes during Hatshepsut’s reign.

At the other end of the time scale, Lucas concluded that both black and translucent-yellow varnishes gradually disappeared from the end of the New Kingdom onward (although they were very much in use during the Twenty-First Dynasty), stating: “No certain use of a transparent varnish can be traced before the late Eighteenth Dynasty and only two instances of its use after the Twenty-Sixth Dynasty, and it appears to have been almost unknown in both Ptolemaic and Roman times.”<sup>6</sup> Although an additional small number of identifications of

ancient Egyptian varnishes have been published since then<sup>7</sup>, Lucas’ original conclusions seem valid and have not, so far as we know, been challenged.

This “disappearance” coincides with the historical time period during which Late Bronze Age Egyptian trade power declined<sup>8</sup> as its political power endured increasing setbacks in its occupation or control of foreign nations as far as Syria, slowly forcing the empire back to its traditional frontiers. As noted by Cline and Cline, this decline and recession gradually would have created a rupture in trade, and therefore in the exploitation and import of *sntr/Pistacia* resins needed for the fabrication of these complex varnishes, a practice dating to Hatshepsut’s reign or earlier.<sup>9</sup>

Today’s “mastic” varnishes are made with the resin of *P. lentiscus*—largely due to availability. *P. lentiscus* resin is widely available in view of the exports from Chios, and the reverse is true for *P. atlantica*. The reverse was no doubt also true in ancient Egypt where *P. lentiscus* resin—a species which in fact yields very little resin<sup>10</sup>—was not easily available. Whereas when the Egyptian New “Kingdom,” an empire in fact, was at its height, *P. atlantica* resin grew in southern Sinai<sup>11</sup>, as it is today, as well as in various parts of neighbouring and partly conquered, partly dominated or partly allied Levant. It was moreover most probably even available from Libya, where the tree is still found today, which Egypt also long controlled. This also explains why *sntr-Pistacia* varnishes appear during the New Kingdom<sup>12</sup> and thereafter declined in use from the Twenty-First through Twenty-Sixth Dynasties. When the arduous tapping and export of resins became difficult because of the political situation, the fabrication in Egypt of these varnishes became sporadic, ultimately disappearing as Egypt faced political chaos during the Third Intermediate Period. In short, so long as the empire existed, the mastic supplies flowed; when this sphere of influence and control receded to the frontiers of Egypt, the mastic supply likewise receded until it nearly disappeared.<sup>13</sup> This prevented the further production and use of multipartite, and particularly tripartite, var-

nishes such as those used by the carpenter Maanakhtef<sup>14</sup> and other ancient Egyptian artists.

It seems worth pointing out at this stage that the late-Twenty-Second Dynasty-to-Roman “balms” identified by Connan include only conifer resin, with no trace of turpentine.<sup>15</sup> When it is remembered that it is precisely during these late periods that varnishes made with *sntr-Pistacia* resin gradually disappeared, the correlation cannot be ignored, and in view of what has been said seems more than coincidental. It is in fact very likely that *Pinus* resins—more easily obtainable or tapped—progressively substituted for *Pistacia* and other resins, as this is precisely what happened historically in later centuries and up to the present day.<sup>16</sup>

Thus in view of the above, it seems reasonable to suggest that these “complex” varnishes be labeled as “imperial.” They have indeed reflected, a pleasant *jeu de mot*, over five hundred years—i.e., from the Eighteenth Dynasty reign of Hatshepsut (circa 1473–1458 BCE) to the Twentieth Dynasty reign of Ramesses IX (circa 1126–1108 BCE)—the extent of Egyptian power and the degree of artistic elaborations and creations which any such strong political power, and even more so an empire, always engenders. We must take into account that this designation expresses the specific political period during which these complex varnishes were elaborated, and that obviously the use of “imperial varnishes” continued—as stated above—well into the Twenty-First through Twenty-Sixth Dynasties, the Third Intermediate Period, and until Roman times or after.

To clearly label these varnishes as “imperial” has not been done before, probably because the subject of ancient Egyptian varnishes has thus far been left either to a very few Egyptologists or, more often, to hard-science specialists such as chemists who, not being Egyptologists or art historians, would never have reached such a conclusion. We consider this precise labeling a clear and useful contribution not only to the history of ancient Egyptian power and trade but also to the history of ancient Egyptian art and technology, and thus to art history in general.

## NOTES

1. John H. Taylor, “Patterns of Colouring on Ancient Egyptian Coffins from the New Kingdom to the Twenty-Sixth Dynasty: An Overview.” In W. V. Davies (ed.), *Colour and Painting in Ancient Egypt* (London: The British Museum Press, 2001).
2. Margaret Serpico and Raymond White, “The Use and Identification of Varnish on New Kingdom Funerary Equipment.” In W. V. Davies (ed.), *Colour and Painting in Ancient Egypt* (London: The British Museum Press, 2001), 33–42.
3. Whether these *sntr* trees were *Pistacia* trees is another unresolved question, and candidates such as *Boswellia* spp. and *Commiphora* spp. should also be considered.
4. Serpico and White 2001.
5. For discussion of the “complex” nature of ancient varnishes, see C. de Vartavan, “Is ‘*my*’ the Solvent in Ancient Egyptian Varnish?” (*AEC-Newsletter* 3, May 01, 2008, <http://www.armenian-egyptology-centre.com>) or C. de Vartavan, *The Principle and Nature of Ancient Egyptian Complex Imperial Varnishes*. *Advances in Egyptology* 1, 2009. Forthcoming.
6. Lucas 1962, 357.
7. See, e.g., Serpico and White (2000, 2001) and Asensi Amorós, (2007). If analyses of ancient Egyptian resinous material are many, the opposite is true of “varnishes,” i.e., the same resins used as coating over objects. There are, however, probably unpublished reports resting in museum files.
8. Egypt dominated the Aegean trade during the sixteenth to fifteenth centuries BCE and Mycenaeans during the fourteenth century; this domination was divided, including the Minoans, from 1400 to 1050 BCE. It is also known that trade between Egypt and Crete dropped off from roughly 1200 to 1050 BCE (Cline and Cline 1991)—from the Nineteenth Dynasty to the beginning of the Twenty-First and Third Intermediate Period (the latter a period of great political turmoil, with the division of Egypt between Upper Egypt/Theban and Lower Egypt/Tanite powers). It can be surmised without risk that the exchange of goods, even within the Egyptian territory, did not function efficiently.
9. The principle of complex varnishes may have been learned, but the necessary ingredients for the development of these varnishes may not have been available until the reign of Hatshepsut or Thutmose III, i.e., until the Egyptian armies went north into the Levant.
10. *P. lentiscus*, except for the Chios variety, yields very little resin, or sometimes—as witnessed by the author in Israel—no resin at all.
11. Thirteen dry nuts of *P. atlantica* together with some wood fragments were discovered in the New Kingdom Timna Temple (Sinai, Israel) and identified by Kislev (1988) and Werker (1988).
12. It is worth noting that bitumen seemingly arrived in Egypt during the New Kingdom, and possibly as early as the Eighteenth Dynasty (Serpico and White, 2001, 36). The appearance of this import—particularly if it was “bitumen of Judea,” which is mostly found near the Red Sea—also corresponds to the period of expansion in the Egyptian empire.
13. It is probable that trade and supply continued, although this is not visible in the archaeological record, i.e., from the varnishes found on wooden objects such as sarcophagi.
14. Cerny and Posener 1978, 21–22.
15. Connan 1999, 46, Table 2. On p. 49 Connan also states, “In our study, no turpentine resin has been identified so far in the [late mummy] balms analyzed.”
16. Despite the later discovery and use of such resins as dammar, copal, etc.

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