

Of Hems and Tassels

RANK, AUTHORITY AND HOLINESS WERE EXPRESSED IN ANTIQUITY BY FRINGES ON GARMENTS

By Jacob Milgrom

IN THE BOOK OF NUMBERS, the Lord speaks to the Israelites through his servant Moses and commands them to wear tassels (or *tsitsit*) on the corners of their garments. The tassels must include a blue thread.

The Biblical passage reads as follows:

"The Lord spoke to Moses, saying: Speak to the Israelite people and instruct them to make for themselves tassels (*tsitsit*) on the corners of their garments throughout the generations; let them attach a cord of blue to the tassel at each corner. That shall be your tassel; look at it [the blue cord] and recall all the commandments of the Lord and observe them, so that you do not follow your heart and your eyes in your lustful urge. Thus you shall be reminded to observe all my commandments and to be holy to your God. I am the Lord your God, who brought you out of the land of Egypt to be your God: I the Lord your God."

Numbers 15:37-41.

The tassels were in fact extensions of the hem, as we learn from innumerable illustrations in ancient Near Eastern art.

To understand the significance of the tassel, we must first understand the significance of the hem. The hem of an ancient Near Eastern garment was not simply a fold sewed to prevent the threads of the cloth from unraveling. The hem of the outer garment or robe made an important social statement. It was usually the most ornate part of the garment. And the more important the individual, the more elaborate and the more ornate was the embroidery on the hem of his or her outer robe. The tassel must be understood as an extension of such a hem.

Extra-Biblical texts teach us that the ornate hem was considered a symbolic extension of the owner himself and more specifically of his rank and authority.

In Mesopotamia we find early Akkadian texts (for example, in 18th-century Mari) which frequently use the phrase "to cut off the hem" (*sisika bataqu*). When the hem is cut off, a part of the person's personality is removed. In exorcising an evil spirit, the exorcist cuts off the hem of the garment worn by the person invaded by the evil spirit; the

exorcist then pronounces an incantation over his patient's detached hem.¹ In a Mesopotamian divorce, the husband effects the divorce by cutting off the hem of his wife's robe.²

The significance of the hem and of its being cut off is reflected in a famous Biblical episode. When the young and future king, David, fled from the jealous wrath of King Saul, Saul pursued David into the Judean wilderness near the Dead Sea. Weary from his pursuit, Saul went into one of the caves near the spring at Ein Gedi to relieve himself, unaware that David and his men were hiding in that very cave. David's men urged him to kill the unsuspecting Saul. Instead, David cut the hem of Saul's cloak to prove that he could easily have killed Saul if he had wanted to, but that he would not harm the Lord's anointed. The passage has a deeper significance, however—in some ways the opposite significance. The hem that David cut off was an extension of Saul's person and authority. David did in fact harm the Lord's anointed; that is why David immediately felt remorse for what he had done: "Afterward David reproached himself for having cut off the hem of Saul's cloak" (1 Samuel 24:6). According to the New English Bible translation, David's "conscience smote him" (1 Samuel 24:7). Although protesting that he had not lifted a finger or a hand against the Lord's anointed (1 Samuel 24:10), David had in fact committed a symbolic act—cutting off Saul's hem—of enormous significance. This significance was not lost on King Saul; he understood full well: "Now I know that you will become king" (1 Samuel 24:20).

The legal significance of the hem is frequently demonstrated in the famous archive of cuneiform tablets found at Mari in present-day Syria near the border of Iraq. In Mari, a professional prophet or diviner would enclose with his report to the king a lock of his hair and a piece of his hem.³ Both the hair and the hem served to identify the prophet, but more important, the piece of hem served to guarantee that the prediction was true. Sometimes the hem was impressed on the clay tablet as a kind of signature.⁴ Today, a person who cannot write sometimes "signs his name" by impressing his fingerprints on the document; in ancient Mesopotamia, a member of the upper class sometimes

"signed his name" by impressing part of his hem on a clay tablet to insure its authenticity.

Returning to the tassels or *tsisit* that the Israelites were commanded to wear, they can be understood as extensions of the hem. The tassels, as shown in the illustrations, are part of the hem; they are simply extended threads of the embroidery of the hem. A tassel may hang free or it may be decorated with a flower head or bell at the end.

The Biblical instruction to attach the tassels to the "corners" (*kanape*) of garments seems puzzling. One explanation is that the hem embroidery terminated at quarter points thereby forming four "corners." Another possibility is that the skirt was scalloped and the tassels were suspended where the scallops met. This was probably what was intended in the quotation from Numbers at the beginning of this article. It directs that the tassels be attached to the *kanap*, a term which does not mean "corner" but rather "extremity" or "wing"; a scalloped hem forms a winged extremity to the garment.

Thus, the significance of the tassel (as well as the elaborate hem) is this: It was worn by those who counted; it was the "I.D." of nobility. The requirement of a blue cord (*petil tekelet*) in the tassels lends further support to the notion that the tassels signified nobility because the blue dye used to color the threads was extraordinarily expensive. Recent scholarship has greatly expanded our knowledge of this dye, and we are apparently on the verge of solving the basic mystery of its production. The blue dye was obtained from the hypobranchial gland of the murex snail.⁵

There are three relevant varieties of the murex snail. The *Murex trunculus* gives a red color with a violet tinge. The *Murex brandaris* gives a very delicate violet-pink color,

and the *Thais haemastoma* (also called *Purpura haemastoma*) gives a violet color.⁶ Both the red-purple dye (*argaman* in Hebrew; *argamannu* in Akkadian) and the blue-purple dye (*tekelet* in Hebrew; *takiltu* in Akkadian) were used in the manufacture of the inner curtain of the Tabernacle (Exodus 26:1) and the garments of the high priest (Exodus 28:6,15,31).

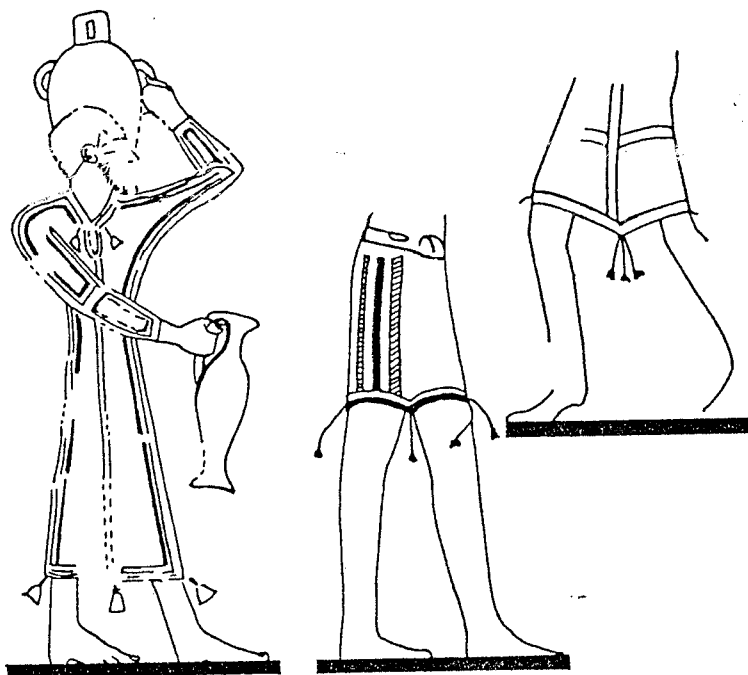
The dye industry from the Murex snail may have originated in the Grecian world rather than in the Phoenician world, as previously supposed. Accumulations of these snail shells have been found in Knossos, Troy and the Attic coast, dating to the early second millennium.⁷ On the other hand, similar accumulations of snail shells from the 15th century have been found at Ugarit on the Phoenician coast of the Mediterranean.

The *Murex trunculus* can be gathered by hand in the shallow waters off the coast of Lebanon and northern Israel (ancient Phoenicia). Apparently the production of dye from these snails was so important that the city of Haifa in Hellenistic times was called *Porphurion*—purple. The other two varieties of Murex snails used to make the required dye had to be harvested from deeper waters with the use of nets or traps.

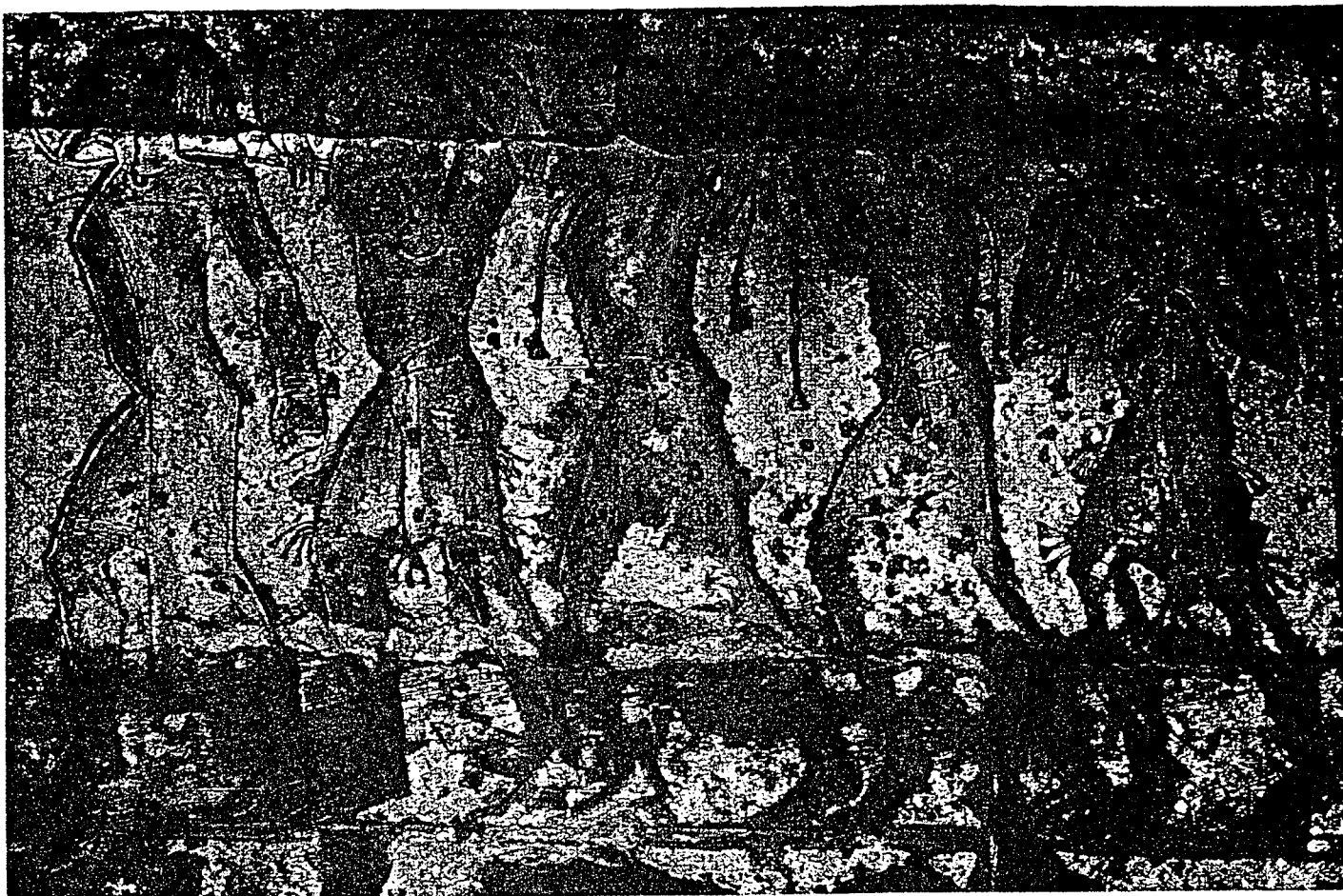
The manufacture of the dye is minutely described by the first-century Roman historian and naturalist, Pliny, in his *Naturalis Historia*. However, his data are insufficient to reproduce the process. Since the middle of the 19th century European chemists have attacked the problem⁸ but without success. Recently a group from Lebanon has reported success in reproducing the dye.⁹ The Center for Maritime Studies of the University of Haifa has been studying the living habits of the snails and simultaneously conducting archaeological research at several installations where the dye was manufactured: Tel Akko, Tel Mor, Shikhmon and from Tel-Keisan, where the dye may have been imported,¹⁰ so we may be very close to solving the mystery of the dye's production.

The method of extracting the dye can be deduced from observing the many ancient shells containing single holes expertly drilled over the locations of the snails' hypobranchial glands. Many others of these ancient shells had been broken at their apex, and this too releases the dye.¹¹

Though the snails are plentiful, the amount of dye each yields is infinitesimal. In 1909, tests by the Austrian chemist Paul Friedlander demonstrated that 12,000 snails were needed to provide 1.4 grams of dye. No wonder that during



Hems and tassels depicted in art of the ancient Near East. Far left is a line drawing of a Syrian tribute bearer from the tomb of Rekhmire at Thebes. Drawings of Egyptian wall reliefs show the tasseled kilt of an Asiatic (center) and of one of the Sea Peoples (right).



Fringed garments worn by prisoners captured by Ramesses III. The paint is still bright on this mortuary temple wall relief at Medinet Habu in Thebes, built by Ramesses III in the first half of the 12th century B.C. The captives are of different nationalities, distinguishable by the ways they are bound and by their dress. From the left, the first prisoner, with his hands bound behind him, is a bearded Libyan with long robe; the next, with a pointed beard and striped tunic, is a Semite. Both this Semite and the Philistine with characteristic feathered headdress, far right, have tassels hanging from the corners of their kilts. Here we see that the commandment to the Israelites in Numbers 15:37 to wear tassels on the corners of their garments reflected a style of dress already in use among other ancient peoples.

the reign of Nabonidus, the last king of Babylon (555-539 B.C.), purple wool was 40 times more expensive than wool dyed with other colors.¹² In 200 B.C. one gram of the dye cost \$84, or \$36,660 per pound. Diocletian paid the equivalent of \$8,460 for 328 grams of purple silk from Sidon, or \$11,724 per pound. In 300 A.D. the demand raised the price of this Sidonian silk to \$98,700 per pound (all figures are in 1983 dollars).¹³

The Bible apparently assumed that even the poorest Israelite could afford at least four blue threads, one for each

tassel.* But only the very rich could afford large quantities of this dye. Indeed, Roman emperors retained for themselves the exclusive privilege of wearing purple mantles, thus giving rise to the color names still used today, "royal blue" and "royal purple." Byzantine emperors were born in purple rooms, i.e. "born to the purple," and the title *Porphyrogenitus* was added to their names. The Bible also affirms that blue cloth was worn by nobility (Ezekiel 23:6; Esther 1:6). Thus, weaving a blue thread *petil tekelet* into

*At one point in history, this was no longer the case, so the rabbis dropped the requirement that the tassels contain a blue thread. Following the two Jewish revolts against Rome (66 A.D.-70 A.D. and 132 A.D.-135 A.D.), each of which ended in devastating defeats for the Jews, the Jewish community was so impoverished that the requirement of a blue thread was abandoned. In addition, a counterfeit blue dye had been developed which was disqualified by the rabbis for use in tassels or *tsitsit* (Bava Metsia 61b; Menahot 42b-43a; Sifre Num. 115). Apparently the desire to prevent the use of this counterfeit blue also led to dropping the requirement of a blue thread. Since the second century, the tassels have been pure white. Tassels are still attached to the four corners of Jewish prayer shawls (*tallit*) worn in the synagogue and on the corners of the so-called small *tallit* or *tallit katan* worn at all times by strictly observant Jews.

Shells of *murex brandaris* snails. Scientists from Haifa University's Center for Maritime Studies excavated this accumulation of delicate looking but very sturdy ancient shells at Tel Mor, on the Mediterranean Sea near Ashdod in Israel. The animals inside—like the one in the inset photo—were a source of purple dye and had been removed in antiquity by boiling. In many other cases, the shells were punctured or, more commonly, crushed in order to expose the animals' hypobranchial glands and then to extract the precious purple dye.

The snail seen here, whose broad white foot grips the side of an aquarium, is called *Purpura haemastoma* or, in English, "red-mouthed purple" because this species, like the *murex brandaris*, was a source of purple dye. These snails were harvested by the millions from the Mediterranean Sea near Crete, Greece, Lebanon and Israel.

the tassel enhances its symbolism as a mark of nobility.

The tassel with a thread of blue signified more than royalty or nobility, however. It also signified the priesthood. We may assume that the thread of blue was made of wool. The ancients had great difficulty in dyeing linen because the colors would run, so all dyed garments are assumed to be wool.¹⁴ A poor man's garment was commonly made of flax, that is, linen—not the fine, expensive linen worn by the priests (called *ses* or *bus*) but the coarse, inexpensive type spun on home looms.¹⁵ In Canaan after the Israelite settlement, the people subsisted on a predominantly agricultural economy, and where agriculture predominated, flax was the common cloth. Rahab's hiding of the spies at Jericho under stalks of flax (Joshua 2:6) is evidence that flax was indigenous to Canaan.

The Bible contains a general prohibition against cloth that combines wool and linen, which is referred to by the untranslatable term *sha'atnez* (Deuteronomy 22:11; cf. Leviticus 19:19). Some of the early commentaries (for example Targum Pseudo-Jonathan on Deuteronomy 22:12), however, indicate that *sha'atnez*—this combination of wool and linen—was sanctioned and even required in priestly garments. And this rabbinic suggestion has now been confirmed archaeologically. Tassels dating to the Bar Kokhba period (c. 135 A.D.) were found in the Dead Sea caves. These tassels were made of white cords of linen and blue cords of wool, demonstrating that the rabbinic teaching was not speculative abstraction but actual practice.¹⁶

Thus the reason for the prohibition against *sha'atnez*—cloth combining wool and linen—is clear: it would resemble some of the priestly garments made from a blend of linen and wool (e.g., Exodus 28:6; 39:29; Mishna Kilayim 9:1). Thus the combination of wool and linen (*sha'atnez*) is forbidden to the lay Israelite because it is a holy mixture and reserved exclusively for the sanctuary (e.g., Exodus 26:1) and the priests.

By using the combination of wool and linen in the

tassel, the ordinary Israelite was, however, in a small way, wearing a priestly garment.

The passage in Numbers with which we began this article tells us why the tassels are to be worn. They are a mnemonic device, to remind the Israelites to observe the commandments. The Israelites are to "look at [the tassel], and recall all the commandments of the Lord and observe them" (Numbers 15:39). But in the next verse (v. 40), the verb sequence is slightly different: they are to "be reminded" by the tassels, then to "observe" the commandments and thus "be holy."

The requirement of the blue thread—royal blue—is a sign that Israel is a people of nobility, whose sovereign is not mortal, but divine. But more than this: Israel is a "kingdom of priests and a holy nation" (Exodus 19:6). Every Israelite wears his priestly clothing, the *tsitsit*. The tassels are a reminder of this holiness, as the passage from Numbers makes clear. In short, "You shall be holy for I, the Lord your God am holy" (Leviticus 19:2; cf. 11:44; 20:26). Though Israelites who are not of the seed of Aaron may not serve as priests (Numbers 17:5), they may—indeed, must—strive for a life of holiness by observing the Lord's commandments.



¹⁴Erich Ebeling, *Tod und Leben* (Berlin, 1931) and Gerhard Meier, *Die assyrische Beschwörungssammlung Maglu, Archiv für Orientforschung, Beiheft 2* (Graz, 1937).

¹⁵Wolfram von Soden, *Akkadisches Handwörterbuch* (Wiesbaden, 1965-81), S.V. *sissiktu*, 4a, p. 1051.

¹⁶*Archives Royales de Mari* 45:15'-17' (VI, 1954); 112:12'-13' (XIII, 1964); 8:25 (X, 1978).

¹⁷Ferris J. Stephens, "The Ancient Significance of sisith," *Journal of Biblical Literature* 50 (1931), 63-4.

¹⁸Ehud Spanier, Elisha Linder, Nira Karmon, *Purple Dye—Biology, Archaeology and History* (University of Haifa, Center for Maritime Studies, 1980); see also Sifre, Deuteronomy 354; Shabbat 26a; Menahot 42b; Isaac Herzog, "The Dying of Purple in Ancient Israel" (University of London dissertation, 1919).

¹⁹Joseph Doumet, *A Study on the Ancient Purple Color*, translated by Robert Cook (Beirut, 1980).

²⁰Moshe Eilat, "Blue and Purple," *Encyclopaedia Biblica*, Vol. 8, pp. 376-8 (Hebrew; forthcoming).

²¹Lloyd B. Jensen, "Royal Purple of Tyre," *Journal of Near Eastern Studies* 22 (1963), pp. 104-18.

²²Doumet, 1980.

²³Spanier, 1980.

²⁴N. J. Jajjian, *Tyre Through the Ages* (Beirut, 1969), Fig. 4, 142; Fig. 5, 138.

²⁵*Yale Oriental Series* (New Haven, 1915).

²⁶Jensen (1963), p. 115. Jensen computed the dollar values for dye and silk based on the dollar's value in 1963. The figures in the text were calculated by multiplying Jensen's figures by 2.82, the percentage by which the dollar declined in value between 1963 and 1983.

²⁷Winifred Needler, "Three Pieces of Unpatterned Linen from Ancient Egypt in the Royal Ontario Museum," *Textile Manufacture in Northern Roman Provinces* (Cambridge, 1970); Alisa Baginski and Amalia Tidhar, *Textiles from Egypt* (L. A. Mayer Institute for Islamic Art, 1980).

²⁸Louisa Bellinger, "Cloth," *Interpreter's Dictionary of the Bible*, I (Nashville, 1962).

²⁹Yigael Yadin, *The Finds from the Bar Kokhba Period in "The Cave of the Letters"* (Jerusalem, 1963) (Hebrew); Yigael Yadin, *Bar Kokhba* (London, 1971). Aaron Kirschenbaum, "Concerning the Requirement of White in *sisith*," *Studies in Judaism*, David Kotler Jubilee Volume (Tel Aviv, 1976), pp. 246-52.