What substance, worth its weight in gold (and then some), was the singular basis upon which were countless wars fought, economies catapulted and lives lost? No, the answer isn’t cocaine, but an entirely different cash crop—murex purple. Used to dye the clothing of the royal and religious, murex purple has a special place in the history of dress.

**Sources of Purple Dye**

In order to understand why a particular color of clothing would have conveyed such prestige it is necessary to learn a little bit about the history of this particular dye. At one time, dyes, such as purple, scarlet, yellow and indigo were made from natural plant, animal and mineral products. The products were often dried, pulverized and then mixed with liquids in order to form dyes for clothing and other textiles. (Today, many dyes for clothing are made synthetically in laboratories, through chemical processes involving products such as aniline.)

The purple dye used in ancient religious and royal robes most likely came from one of several types of shellfish: a) *Murex brandaris*, b) *Murex trunculus*, c) *Helix ianthina*, d) *Purpura lapillus*, or perhaps e) *Purpura haemastoma*. One legend suggests that the dye was discovered by Helen of Troy, who when strolling along the beach to pass the time while in captivity, noticed that her dog had chewed into a large shellfish and its mouth had become purple as a result (Jensen 1963: 106).

The two chief sources for this purple dye are *Murex trunculus* and *Murex brandaris*, and the shades of dye produced these sources can range from bright red, to blue, and to deep, almost black, purple. The dye extracted from these shellfish is extremely valuable (hence the prestige associated with purple clothing), since it's not only rare but also costly to produce. Only a few drops of the liquid used to make the dye can be extracted from each shellfish, and, according to one recipe, in order to dye 1,000 pounds of wool, 111 pounds of the *Murex* secretion and 200 pounds of the *Purpura* secretion were required (Stieglitz 1994: 46). According to Renata Pompas, “it was necessary to have 12,000 murex or molluscs for 1.4 grams of pigment, scarcely enough for dying a single dress the size of the Roman toga.” It is no wonder then, that this dye was used primarily to treat the garments of wealthy or privileged individuals.

As Pliny the Elder notes in his *Natural History*, the dye was created through a lengthy process of distillation:

> There is a white vein with a very small amount of liquid in it; from it is obtained that well-known dye which shines faintly with a deep rosy colour, but the rest of the body is unproductive.

> [...] Men try to catch the murex alive because it discharges its juice when it dies. They obtain the juice from the larger purple-fish by removing the shell; they crush the smaller ones together with their shell, which is the only way to make them yield their juice.

> [...] The vein already mentioned in removed, and to this, salt has to be added in the proportion of about one pint for every 100 pounds. It should be left to dissolve for three days, since, the fresher the salt, the stronger it is. The mixture is then heated in a lead pot, with about seven gallons of water to every fifty pounds, and kept at a moderate temperature by a pipe connected to a furnace some distance away. This skims off the flesh which will have adhered to the veins, and after about nine days the cauldron is filtered and a
washed fleece is dipped by way of a trial. Then the dyers heat the liquid until they feel confident of the result. A red colour is inferior to black (138).

Although this recipe is ancient, variations of it are still used today. Jensen states that he encountered some children on the Syrian coast who had mashed murex shells and the mixed the snail extract with lemon juice and then used the mixture to dye some rags (Jensen, 104).

**Etymological and Geographic Origins of ‘Purple’**

Because many of these shellfish are known to inhabit the waters off the coast of Lebanon (one dye, known as Tyrian purple, refers to the city of Tyre, or Tyr, located in what is today southern Lebanon) and Syria, the origin of the purple dyes was often assumed to have originated from this area. Indeed, *the ancient land of Canaan and its corresponding Greek name, Phoenicia, mean "land of purple"* (Astour 1965: 346). However, Robert Stieglitz has suggested that the dye might actually have originated in Crete. The earliest archaeological evidence—heaps of discarded shells—for purple dye production in Canaan dates to approximately the 15th century BCE, however there are archaeological indications that the Minoans on Crete developed a little earlier, about 1750 BCE (Stieglitz, 48-9).

It's interesting to note that the word *purple* may derive from the word *porphyra*, whose meaning refers to *agitated action*, such as rising, seething and boiling, the very process required to create the purple dye. Of the etymological connection between the words “Canaan,” "Phoenician," and "purple," Astour states,

> It would thus seem that the Phoenicia[n] purple-fishers of the Bronze Age, who were attracted to the Aegean by its wealth of murex and who processed their catch on the spot[,] transferred to the natives the technological term for the operation of ‘boiling’ or ‘decoction,’ parpur or parpura, which became with them, on the one hand, the general term for violent seething and agitation of water, on the other hand, the special term for purple dye, obtained by prolonged boiling (350).

**Dressed in Purple**

Regardless of where or how it was discovered, purple dye has been used in clothing for thousands of years. Numerous ancient Minoan snake goddess statues depict a woman wearing a long dress whose stripes are believed to have originally been been stained with murex blue (Stieglitz, 54). The *fringe on the tallit*, the ritual garment worn by some Jewish men as part of daily morning prayer and/or on their wedding day, was originally supposed to have been dyed from murex—an imitation or substitute was unacceptable. Indeed, recounting a conversation between Moses and God, the Torah states,

> Speak to the Israelite people and instruct them to make for themselves fringes on the corners of their garments throughout the ages; let them attach a cord of blue to the fringe at each corner. That shall be your fringe; look at it and recall all the commandments of the Lord and observe them, so that you do not follow your heart and eyes in your lustful urge" (Numbers 15: 38-39).

As murex dwindled in supply however, it became increasingly difficult and expensive to obtain, and Rabbis removed the requirement that the fringe, or tzitzit, be dyed with murex. Today, murex has become more readily available, and some Jews have reverted to wearing tzitzit dyed with this substance (Plaut, Bamberger and Hallo 1981: 1124).

There are references to murex in other religious texts as well. According to the New Testament of the Bible, on the day of his crucifixion, Jesus was dressed with a crown of thorns and his body clothed in a purple garment usually reserved for royalty (Mark 15:17).
The latter was no doubt a sarcastic gesture by his detractors who chanted, "Hail, King of the Jews!" Although Jensen (104) states that "Muslims did not value purple," Islamic texts suggest its value, and its subsequent repudiation by the Muslim prophet Muhammad. As if to demonstrate his humble, ascetic lifestyle, Muhammad said, "I do not ride on purple [saddle-cloth], or wear a garment dyed with saffron, or wear a shirt hemmed with silk" (Robson, 918). During the reign of Queen Elizabeth I, purple-hued clothing was a luxury permitted only to "Dukes, Marquesses, Erles, their children or Barons & knights of the order" (Elizabeth I 1559: 2). Today, Pope John Paul II often makes public appearances in purple robes, though the source for the dye may be an insect (a less costly substitute introduced by Pope Paul II in 1464) or a synthetic dye—not the murex shellfish (Druding 1982).

Although there are a number of inexpensive chemical substitutes for murex, purple is still the color of the royal and religious. As Alice Walker once said, "I think it pisses God off if you walk by the color purple in a field somewhere and don't notice it." For thousands of years, purple has been a color that commands attention.

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Bibliography:


