

What is papyrus?

Many learners may be aware of papyrus and its use by the Ancient Egyptians. Many may have seen modern versions of the type often sold to tourists (these are sometimes produced on banana leaves and not actually papyrus!).

Papyrus was manufactured from the pith of the papyrus plant, *Cyperus papyrus*, a wetland reed once abundant in the Nile Delta of Egypt. It has unusual triangular stems. Papyrus is first known to have been used in ancient Egypt (at least as far back as the First dynasty), but it was also used throughout the Mediterranean region. Ancient Egyptians used this plant as a writing material (but evidence shows that it was also used to make rope, mats, baskets and even boats).

Papyrus shares a similar composition to paper (which is made from wood pulp) being composed of cellulose, lignin, minerals and water.



Ancient Egyptians would have gathered the papyrus reeds and extracted the pith, cutting it into pieces around 40cm in length. They would then have laid it in a criss-cross formation and pounded the surface to bind the fibres together.

They would have weighed the papyrus down as it dried. The papyrus would then have been “polished” by rubbing with a smooth stone or seashell. It would then be suitable for writing or painting upon by a scribe. The finished papyrus would then have been rolled up into a scroll. Scrolls of papyrus are light and easily transported and stored.

Papyrus survives well in hot, dry conditions and examples have survived for many centuries. The oldest written papyrus known to be in existence is, according to Kenyon (*The Paleography of Greek Papyri*, Oxford, 1899), an account-sheet belonging to the reign of the Egyptian king Assa, which may date back to around 2600 B.C!



How to make a piece of imitation papyrus

Although Egyptians gathered papyrus reed from the banks of the Nile, it is rather hard to obtain it in Scotland. We will use some cardboard packaging to simulate the papyrus reed fibres. The technique will be very similar and the finished piece can be painted or written on. It may be possible to obtain banana/palm leaves and the same technique could be followed.

What you will need

Pieces of brown cardboard packaging from an old box - the layered corrugated type (figure 1)

Water in a large bowl

A piece of thin plastic (a "poly pocket" is ideal)

Stone or small hammer



Figure 1



Figure 2

What you need to do

Tear the cardboard into strips approximately 20cm in length and 3cm in width (figure 2). It doesn't matter if some of the pieces are smaller than this.

Rip the layers apart, some will be smooth and some will be ridged or corrugated. You may find it easier to soak the cardboard first (figure 3). Once the layers have been separated, soak them in the bowl of water for 20 minutes or so. Don't let the paper get too mushy, it should keep its shape.

Take out a piece of wet cardboard and lay it on the plastic sheet. Now lay the other pieces out in a criss-cross arrangement (see figure 4).



Figure 3

What you need to do (continued)

Try to keep the cardboard pieces at right angles to each other, weave them under and over each other to mimic the arrangement of real papyrus (figure 5).

Keep on doing this with large and small pieces (figure 6) until you have covered the entire surface of the poly pocket. Ideally, there should be a complete layer of wet cardboard strips covering the surface, all woven together and overlapped.

Use an absorbent cloth to blot most of the water from the surface, or gently raise one end to allow excess water to drain away.

Now using stone or small hammer, carefully and gently pound and bash the surface (figure 7), this will make the cellulose fibres in the cardboard bond together to make a smooth, stable surface to write on.



Figure 4



Figure 5



Figure 6



Figure 7

What you need to do (continued)

Keep gently bashing the paper until you can see the torn edges of the cardboard bind together (figure 8). Continue to do this over the entire surface, gently pour off any excess water.

Place the finished piece in a warm place to dry. You could place another plastic sheet on top and weight it down to keep it flat, but it will take longer to dry out. Put plenty of newspaper underneath to soak up any excess water or put in outside in the sunshine (figure 9).

Once your imitation papyrus has dried out completely, (figures 10 and 11) you can write on it or paint it in the traditional way. We used acrylic paints (figures 12 and 13).

In what ways does this differ from real papyrus? How is it similar?



Figure 8



Figure 9



Figure 10



Figure 11



Figure 12



Figure 13

Reflective questions

Papyrus

- Which other country or place might you find papyrus plants, *Cyperus papyrus*?
- How could papyrus be used to make things other than paper? Rope, mats, baskets, even boats
- What makes papyrus similar to paper?
- Do any other materials have a similar composition to papyrus, other than paper?
- How do you collect the pith from the papyrus plant?
- Why would you criss-cross the pith when making papyrus?
- Why does pounding/bashing the criss-crossed pith bind the fibres together?
- What happens to the criss-crossed fibres as they dry?
- What could you use to paint or write on the papyrus?
- What happens to papyrus if it gets wet?
- What makes cardboard packaging a good substitute for making imitation papyrus?
- What is happening to the cardboard while being soaked in water?