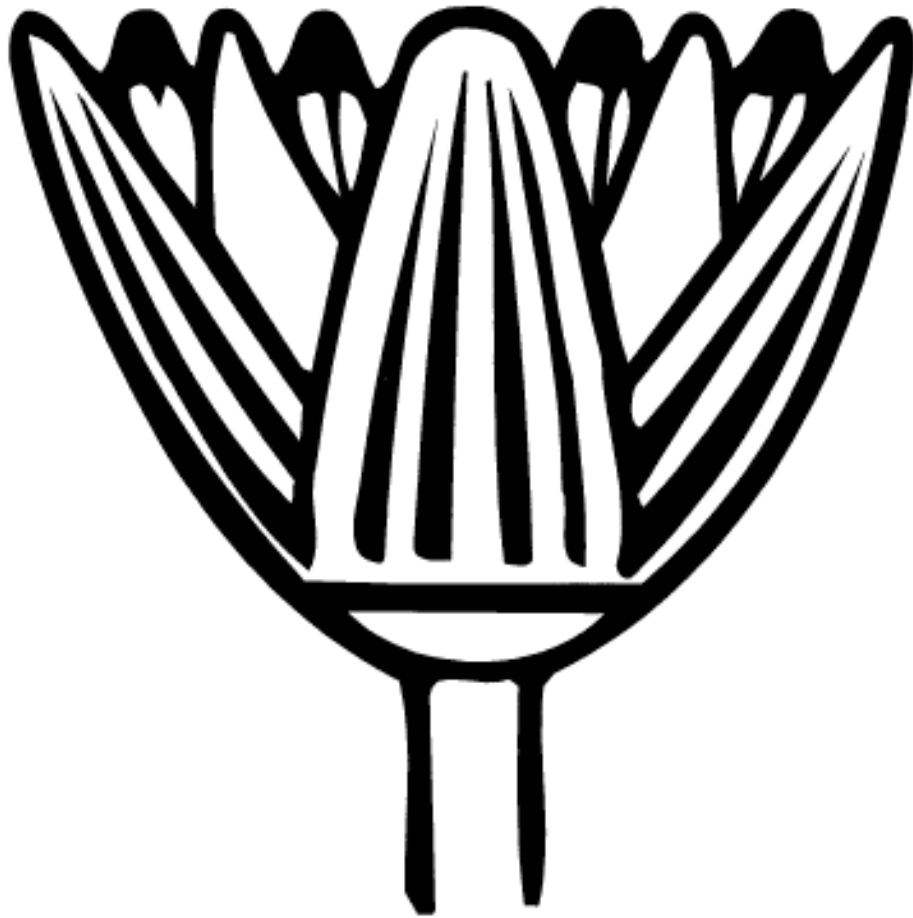


**Birmingham Botanical Gardens
and Glasshouses**



The Egyptians



The Birmingham
Botanical Gardens
& Glasshouses



Introduction

The purpose of this booklet is to highlight the opportunities for pupils at Key Stage 2 to study history at the Botanical Gardens.

Examples of activity sheets and background information are also included which have been designed to be easily adapted to suit the needs of pupils working at a range of levels.

Much of the work at the Botanical Gardens is cross curricular in nature and the activities can easily form the basis of tasks which incorporate other subject areas.

Activities:

Gift of the Nile

Conditions needed to grow a range of Egyptian plants can be studied in the glasshouses. This information can then be used to make suggestions about whether the plants would have grown on the banks of the Nile, near to the Nile or drier regions.

Egyptian Plants

A number of plants growing at the Gardens were used by the ancient Egyptians such as:

Date palm, Carob and Pomegranate. The stages in the production of writing paper from Papyrus can be studied.

Egyptian Motifs

Many of the Egyptian plants were used as the stylised basis for repeating patterns for decoration. Pupils can use sketches of Egyptian plants to create their own designs.

Egyptian plants

Tropical House

PAPYRUS

Fibres for paper
Used for decoration

WATER LILY

Flowers and leaves for
decoration

Sub-tropical House

DATE PALM

Fruit
Fibres for rope
Leaf strips for baskets

Mediterranean House

CITRUS FRUITS

Introduced in Greco-Roman
times

LOCUST TREE
(CAROB)

Chocolate tasting bean
Introduced in Greco-Roman
times

OLIVE

Fruit
Oil
Leaves used for decoration

Desert House

EUPHORBIAS

Succulents living in Africa (not
cacti!)

Terrace

CASTOR OIL (in tubs
during summer)

Oil for lamps
Medicinal

Roman Garden

FIG

Fruit
Leaves for decoration

Gift of the Nile

Places in Egypt: banks of the Nile, close to the Nile, drier places away from the Nile.

Name of plant: Climate: Special features: Places it would grow in Egypt:	Name of plant: Climate: Special features: Places it would grow in Egypt:
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THE BYBLUS PLANT

“But when she could no longer hide him, she took for him an ark of bulrushes and daubed it with slime and with pitch and put the child there in; and she laid it in the flags by the river’s brink”

Exodus II 3.

Beside the pool in the Tropical Glasshouse may be seen a tall reed-like plant growing in the wet mud. Many tall smooth stems rise from a stout creeping, scaly, rootstock and taper upward from a base as thick as a forearm until they terminate in a brush of fine thread-like branches, among which, at times, may be found the small grass-like florets. Some visitors will detect a close resemblance of this Papyrus reed to a smaller relative sometimes grown as a house plant, the Umbrella plant, and indeed they are both members of the same large genus *Cyperus* which numbers more than 500 species. But *Cyperus papyrus* is the most renowned of them all as the source of what was probably the earliest of writing materials, for this was the plant used by the Egyptians as a source of paper. The very name paper is a contraction of the word papyrus.

The papyrus reed in ancient times grew mainly in the delta of lower Egypt, in the marshy land, sluggish brooks and shallow ponds left behind after the inundations. Great care was taken over its cultivation because the quality of the paper, its colour, pliability and durability depended a great deal on the vigorous growth of the plant.

The method of preparing papyrus paper is worth recording. The source of the product is the lowest 2-3 metres of the long stems from which the outer rind is peeled away, although not discarded, to reveal an internal pith-like tissue of a whitish or pale buff hue according to the quality. This inside pith was cut length-wise into strips with sharpened needles and the length of these strips determined the width of the paper to be made, varying from about 14 inches in the best quality to only around 6 inches for common use. No more than 20 such strips could be cut from a single stem.

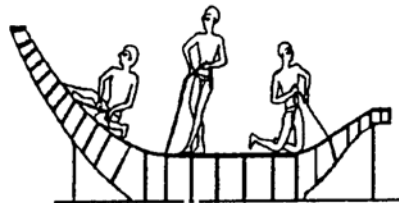
The strips were then laid parallel to one another, edge to edge, on a flat table and an upper layer superimposed at right angles to the first. The two layers were bonded together with muddy water from the Nile which, having a content of organic matter, acted as a binding agent and then pressure was applied. This process could be continued without limit to produce, if necessary, a sheet of indefinite length with a width determined by the length of the strips of the first layer. After a suitable period under pressure the sheets of paper were hung in the sun to dry.

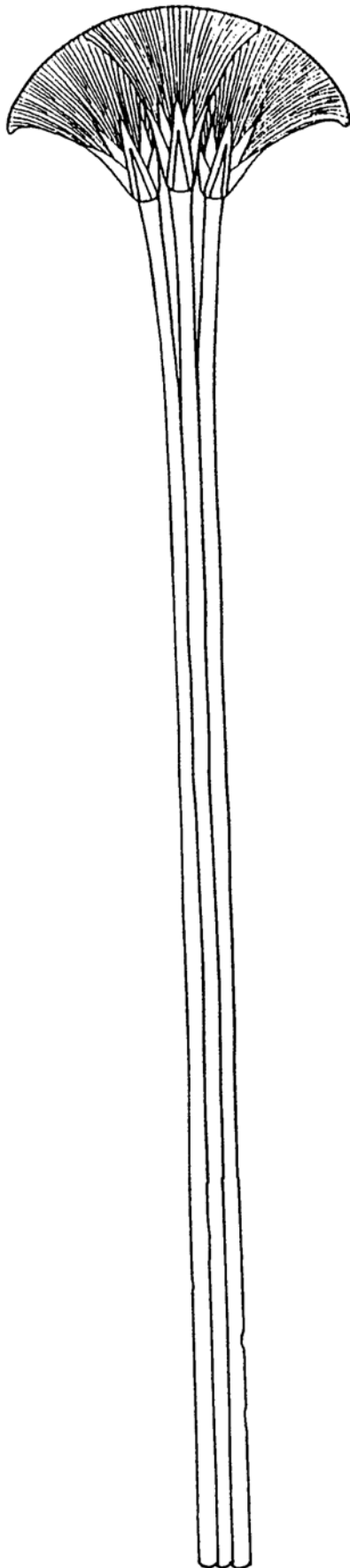
The quality of papyrus was very variable, but the best was extremely durable and many examples of documents written in hieroglyphic script dating back to Pharaonic times exist in archaeological collections and museums throughout the world.

The priestly class which ruled Egypt under the Pharaohs perceived papyrus a fruitful source of revenue. Its cultivation and preparation was a strictly observed monopoly which eventually so raised the price that only the well-to-do could afford its use. Consequently we find that it was mainly used for recording funeral rituals, records of sales of large estates and official payments of money. It is possible, however, that documents for such important purposes were recorded on the better quality papyri and were carefully preserved and so have survived the ravages of time better than those employed in more commonplace transactions.

Records of life in ancient Egypt abound with references to other uses of the papyrus reed. The buoyant air-filled stems were bound together to make river craft, particularly

punts used for hunting and transport through the flooded marshes during periods of inundation. Such vessels were thought to be immune to attacks by crocodiles. Papyrus canoes and small boats like the one shown under construction in the illustration were particularly adaptable to river traffic as they were light enough to be carried round the cataracts or to be towed against the current or an unfavourable wind. Reports exist of large papyrus vessels sailing as far as India, but these are probably apocryphal. Nevertheless, the Norwegian anthropologist Thor Heyerdahl proved the capability of papyrus craft of supporting long sea voyages when in 1970 he sailed the Atlantic Ocean from Morocco to Barbados on a raft made from the reed. Papyrus ropes were certainly used in the construction of more substantial vessels to bind together a framework of osiers. On a humbler level the lesser stems of the plant were used for many every-day articles in domestic use in Egypt such as baskets, panniers, food containers and, as the opening quotation illustrates, as cradles for babies. Other miscellaneous uses were for sandals and fishing nets and from the peeled rind of the stems even sails for ships; but in truth there may have been some historical confusion here because many of the items mentioned may have been made from other species of *Cyperus* or even reeds of other genera. This seems likely in view of the strict government surveillance of the paper industry.



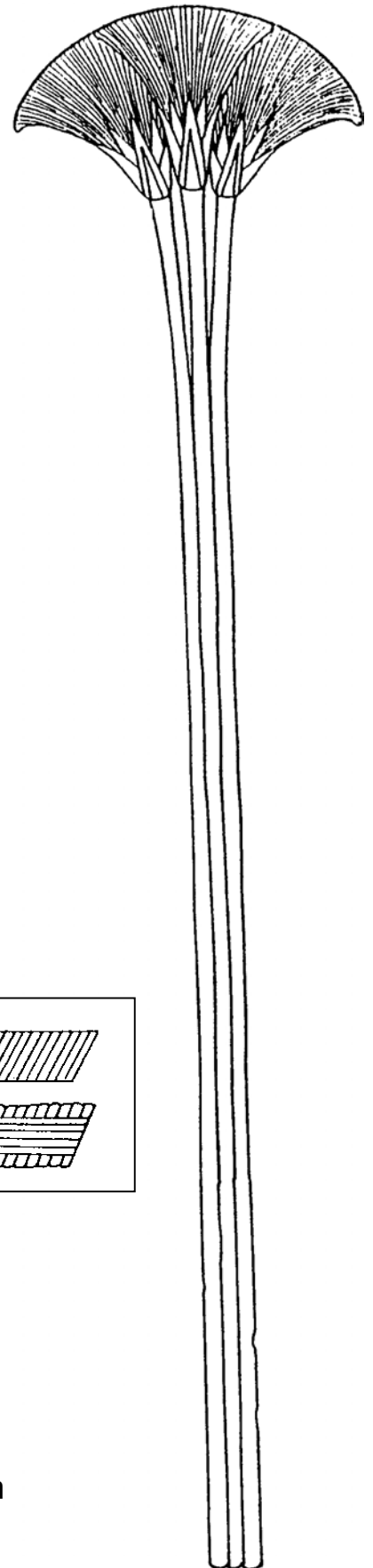
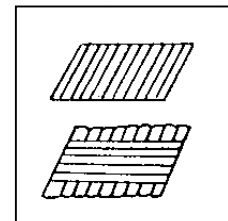


HOW TO BE A SCRIBE IN ANCIENT EGYPT

To have been a scribe in Egypt, there were many things you needed to know. One of these was how to make paper. This was made from the Papyrus plant, a tall reed-like plant that grew in the Nile delta.

To prepare the paper you had to:

1. Peel away the outer rind leaving behind the white pith
2. Slice it into thin strips (the length of strip depends on the width of paper needed)
3. Soak the strips in water
4. Lay the strips out like this on a flat surface
5. Now place another layer on top but in the opposite direction
6. Stick the two layers together using the muddy water from the Nile
7. Cover with a heavy stone
8. Leave for several days and then hang in the sun to dry



Egyptian Decoration
(based on plant forms)

