# The Royal Cubit of Egypt <br> Cardboard kit for a replica of the cubit of Amenemope (c. 1250 BC) <br> 680.AKE <br> © Klaus Hünig, Andreas Schröer (Translation) 


#### Abstract

The wooden original of this royal cubit replica is stored in the Turin Museum, Italy. It was found around 1820 in the Necropolis of Memphis. The inscription on the top shows that it is part of the burial gifts to the royal civil servant Amenemope, director of the central office for grain stores under King Horemheb (1319-1293 BC, late 18th dynasty). The reproduction is based on the drawings of R. Lepsius. Some details have been generalised (the markings for little span, royal span, upper arm, and small cubit were moved to the right by one finger), so that this reproduction can be considered to be a typical egyptian royal cubit.


## Assembly Instructions

* The assembly itself is quite straight forward and should take only about 30 minutes. The parts are die-cut to fit exactly together. The components are marked with a part number ([A1], [A2], [B1], and [B2]) and their name.
* We recommend using a sharp knife to remove the parts from the cardboard sheet.
* To join the two halves of the cubit, you will need two strips of normal paper, about $2 \times 13 \mathrm{~cm}$ and $2 \times 8 \mathrm{~cm}$.
*Use a standard solvent based all purpose glue, e.g. UHU or Evo-Stik Impact. Do not use water-based glue: it softens and warps the cardboard, and doesn't stick properly to the printed surfaces. Solvent based glues also dry much faster.
* Folding lines are prepared by grooves, which all have to be folded backwards: you need to fold them away from you when looking at the printed side of the part. You get a straighter fold if you position the groove over a sharp edge.
* This is how to accelerate the setting of the glue: put a suitably thick layer of glue onto one of the parts to be glued and press the parts together so that the glue spreads out on both sides. Then pull the parts apart, blow 2 or 3 times over the surfaces and press the parts together again. Take care that they fit exactly, as the glue binds immediately.
* If you want to add some weight to the cubit, you can glue a 52 cm long strip of wood into the reinforcing rib before Step 10. The cross section should be $25 \times 10$ $\mathrm{mm}, 10 \times 20 \mathrm{~mm}$, or $15 \times 15 \mathrm{~mm}$.

Step 1: Remove the left [A1] and right half [A2] of the cubit from the cardboard.

Both halves have four glue tags on their outer ends and are cut straight at the inner ends. If you hold them together, they form the 52.3 cm long cubit.

Step 2: Put both halves with their printed sides down onto your worktop so that their cut ends are flush and the grooves are exactly aligned. Glue a strip of paper over the cut ends so that you create one single piece. It might help to temporarily fix the two halves to the worktop with some sticky tape.
Step 3: Remove the two pieces of the reinforcing rib ([B1] and [B2]) from the cardboard and glue them together the same way as described in Step 2.
Step 4: Fold all grooves of the outer part backwards.

If you glued the outer part together now, it would look like a long bar with five sides of different widths:


The widest side is the bottom of the cubit which carries the cm and inch scales. On the long edge is a grey glue tag and on the short edges are the flaps that will later close the ends of the cubit.
All other sides of the cubit are marked with roman numerals on their glue tags.
Side I-I is the narrowest one. It is the vertical front of the cubit and is divided by a number of vertical lines.
Side II-II is slightly wider. It is divided by a long horizontal line and is the only sloped side of the cubit.
Side III-III also has a long dividing line. It is the horizontal upper side of the cubit.
Side IV-IV is the vertical rear of the cubit. It will be glued to the grey glue tag on the bottom side in the last step.

Step 5: Fold all grooves of the reinforcing rib backwards. The rib will then have a trapezoidal cross section:


Next we will glue the reinforcing rib in place.

Step 6: Glue one of the long glue tags of the reinforcing rib onto the plain back of the bottom side of the cubit, right into the corner with the vertical side I-I.


Step 7: Now glue the other glue tag of the reinforcing rib onto the plain back of the bottom side, right into the corner with the vertical glue tag.
Step 8: Apply a generous amount of glue onto the grey top of the reinforcing rib and glue the side III-III onto it. The folded edge of the rib should sit right in the corner between sides II-II and III-III:


Step 9: Glue side IV-IV onto the long glue tag of the bottom side. The cubit is now quite rigid and its cross section now looks like this:


If you want to glue in a strip of wood, you should do so now.

Step 10: Now close the two remaining sides of the cubit by glueing the ends onto the glue tags with the roman numerals.

Congratulations! You have now finished your replica of an Egyptian Royal Cubit, an artefact from Egypt's rich history.

