

## Procedure for carbonization

Papyrus was carbonized by heating in a semi-sealed crucible (i.e there was a lid on it) filled with coconut shell carbon. Temperature was ramped from room temperature to 450 Celsius over 2 hours, held at temperature for 1 hour, and allowed to cool.

Papyrus became stiff and brittle and lost approximately 50 percent of its mass with ink remaining visible.

Before: With and without carbon



After: With and without Carbon



Without carbon, oxygen just eats away at the scroll and it turns to ash.





