小刀当作笔, 竹上刻文字。我国古代时, 竹片充当纸。

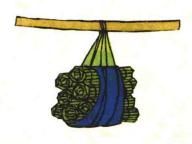


In ancient China, people used bamboo chips as paper, and gravers as pens; people carved characters on bamboo chips.





一直到东汉,仍然未改变。 竹简很笨重,刻字真麻烦。



Bamboo slips were cumbersome to carry and troublesome to carve on.

This situation did not change until the Eastern Han dynasty.



有个小徒弟,名字叫蔡伦。





There was a young apprentice named Cai Lun, who was hardworking and knowledgeable.

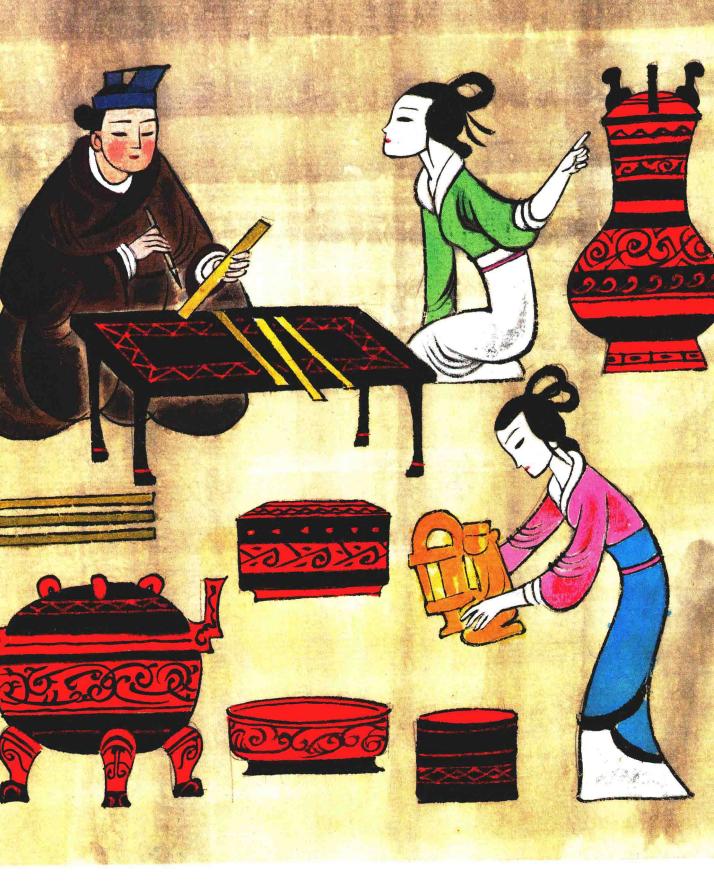


样样详载记,记录费脑筋。



The palace hired him to manage all the equipment.

Every single piece needed to be recorded, which racked his brain.



反复找材料,试过几百次。蔡伦立壮志,决心要造纸。



*

Cai Lun determined to invent lighter paper.

He tried different materials and did hundreds of experiments.



可惜价钱贵,书写不合适。帛上能写字,漂亮又好使。

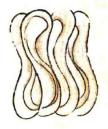


Silk fabric was writeable, artistic, and useful, but too pricey to be used as paper.



天工匠来,送来几捆丝。

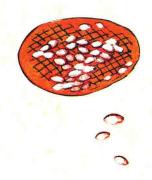




One day, a craftsman brought several bundles of silk and a few pieces of yarn sheets* full of words on it.



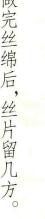
蔡伦下工房,一一看仔细。 丝片怎么做 ? 成本高或低 ?

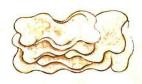


"How to make yarn sheets?" "How much is the cost to make it?" wondered Cai Lun and went to the workshop to check it out.



做完丝绵后,丝片留几方。





In the workshop beside a bamboo sheet, workers were busy producing silk. Yarn sheets were left behind after silk was made.