

阅读空间 · 英汉双语主题阅读

古登堡与印刷术

Johann Gutenberg
and Printing

中国教育学会
外语教学
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CENTURY
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今天,当我们想到书的时候,自然而然出现在脑海中的是一本印制的书,同一个版本可能有上千、上万册一模一样的书,甚至有几百万本(想一下《哈利·波特与火焰杯》)。但是,如果你问1450年或者1460年的一位读者,一本书是怎样产生的,答案可能就会是:“当然是抄写的!”

古登堡对自己的发明中那些关键特点的构思与设计都非常到位,以至于在他去世后的几百年中,字模铸造和印刷技术几乎没有发生什么变化。到了15世纪末期,欧洲的每个大城市,以及大部分小城市,都出现了印刷机构。在所谓的古版本时期(1450—1501),几乎印刷了3万册不同版本的书籍。这对于文艺复兴时期知识的传播作出了巨大的贡献。

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阅读空间·英汉双语主题阅读

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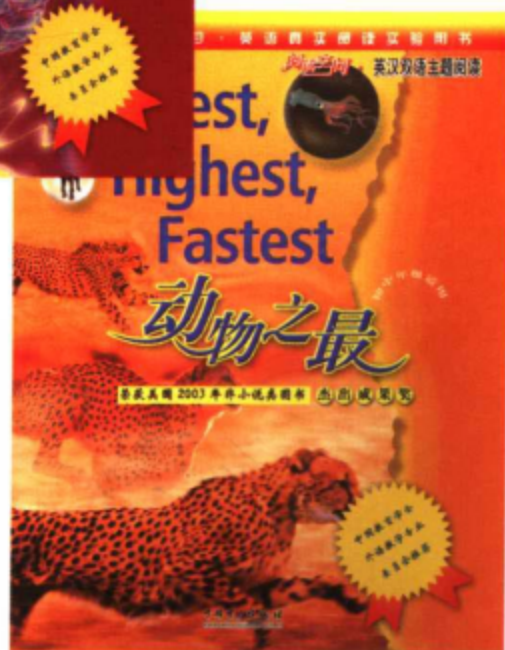
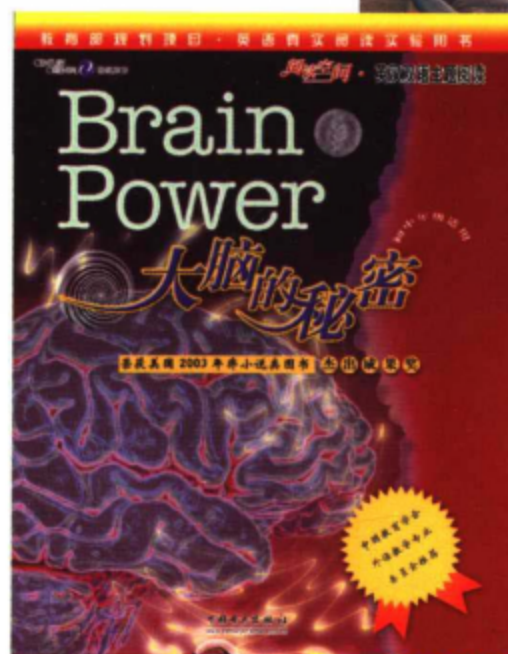
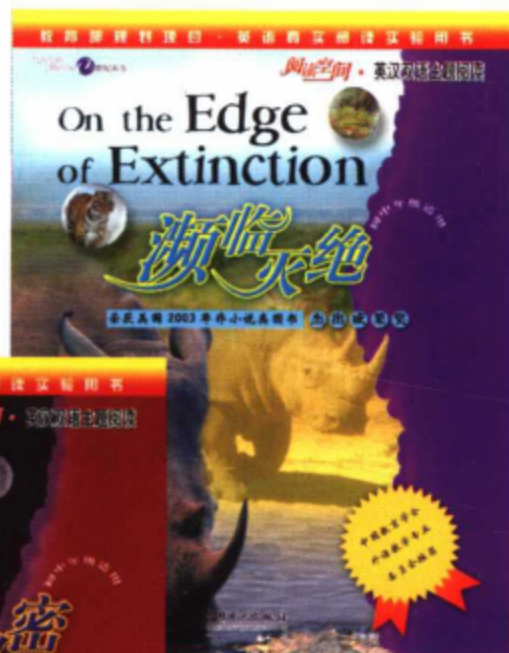
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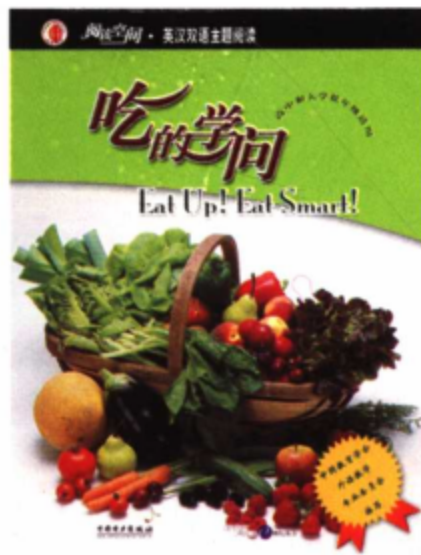
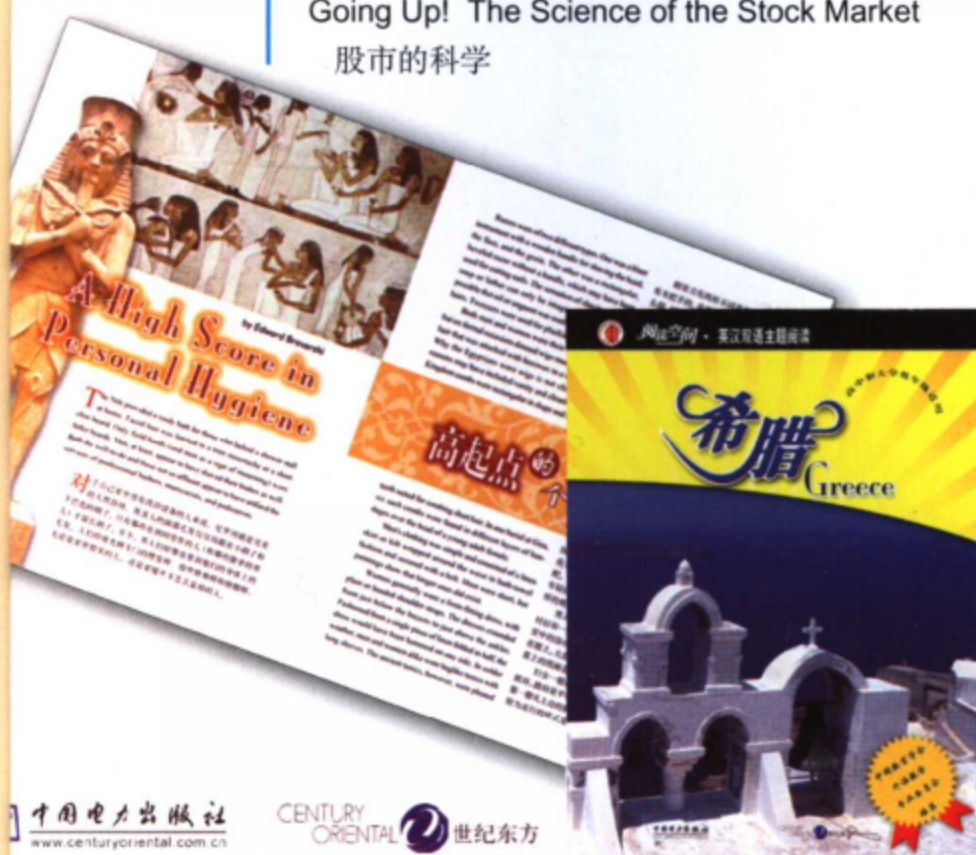
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Nothing is invented and perfected at the same time.

— An old proverb

没有两全其美之事。

—— 一则谚语

进入21世纪之初，一项民意测验显示，对于“上个1000年中最具影响的人物”这一问题的回答，约翰·古登堡这个名字排列在很前面。

的确，印刷术的发展使得世界发生了显著的变化。文明的进程与印刷业发展结合得越来越紧密。

那么，古登堡是谁？他都做过些什么？翻开本书，让那些对古登堡进行了几十年研究的学者专家们来告诉你吧。

看完本书后，你再来回答上面的问题，是否古登堡也同样列在你的名单之先？



BOOKS BEFORE PRINTING

by Paul Needham

印刷术发明之前的书

Today, when we think of a book, we automatically picture a printed book, of which there can be hundreds, thousands, or even millions (think of *Harry Potter and the Goblet of Fire*) of basically identical copies. But if you had asked a reader in 1450 or 1460 how a book was made, the answer would have been, "It's written, of course!" Today, we call such books "manuscripts," a combination of the Latin words *manu* ("by hand") and *scriptus* ("written"). From ancient Greek and Roman times down to the age of Johann Gutenberg's invention—more than 2,000 years—this is how all books were made. But at the time, no one would ever have thought of calling them manuscripts. They had no need for a special word to explain how they were made: They were just books.

Suppose now that you lived in England in the middle of the 15th century (1400s). You had heard about the *Canterbury Tales*, which Geoffrey Chaucer had written 50 years earlier, and wished to have your own copy so you could read it any time you wanted. If you knew that a friend or neighbor had a copy, in manuscript, of course, perhaps you could borrow it. Then you would be able to copy it yourself with pen and ink, on sheets of paper or *vellum*. Or, if you had enough money, you might go to a bookseller, who would, for a fee, hire a professional scribe to make you a copy—almost certainly, in better handwriting than you could produce yourself. You would also have to pay for the paper or the more costly vellum the text was written on, and for any special decoration that was added to it. Finally, you would have to pay for a binding to hold the leaves (pages) of the book together.

Looking back, we can see how slow, laborious, and inefficient this process of making books was. For countless generations, however, such hand-copying

今天,当我们想到书的时候,自然而然出现在脑海中的是一本印制的书,同一个版本可能有成百上千册一模一样的书,甚至有几百万本(想一下《哈利·波特与火焰杯》)。但是,如果你问1450年或者1460年的一位读者一本书是怎样产生的,答案可能就会是:“当然是抄的!”今天,我们称这种书为“手抄本”(manuscripts),这个词是由拉丁词*manu*(意思是“用手”)和*scriptus*(意思是“抄写的”)合成的。从古希腊和罗马时期开始,一直到古登堡发明印刷术的时候——其间是两千多年——所有的书就是这样产生的。但是在当时,没有人会把这些书称为手抄本。他们不需要一个特殊的词来表示它们产生的方式:它们就是书。

现在假设你生活在15世纪中期的英国,你想必听说过《坎特伯雷故事集》,这是杰弗里·乔叟50多年前写的作品,你自己想拥有一本,以便随时可以阅读。如果你知道一位朋友或者邻居手里有一本(当然是手抄本)的话,也许你可以借来。然后你可以自己用笔和墨,将整本书抄下来,写在纸上或者犊皮纸上。或者,如果你有足够的钱,可以找一个书商,他可以收取一定的费用,雇佣一名专职的抄写员为你抄一本——有一点几乎可以肯定,那就是他写的字要比你自己写的好。你还需要花钱买抄写用的纸,或者价格更加昂贵的犊皮纸,以及额外的装饰。最后,你还得花钱把书页装订起来。

现在,当我们回过头看这一过程的时候,我们可以看到做书是个多么缓慢、费力、低效的过程。但是,对于多少代人来说,似乎所有的读者都认为这样的手抄本没有

Vellum
is a fine kind of parchment prepared from calfskin, lambskin, or kidskin, used as a writing material or for binding books.

seemed to work well for all readers. There seems to be no record of an early book-user writing anything like: "This book-making business is way too slow; we need something faster and better."

We really cannot say why a new form of book-making—the use of individual letter-types to print multiple copies—was invented in 15th-century Europe and not, say, in the 13th, when all the specific technologies Gutenberg used were already widely known to European craftsmen. Even if we cannot explain the timing of the invention, certain factors suggest why, when the invention was made, the readers of Europe were quick to accept it.

Shortly before 1350, the super-deadly Black Death, a bacterium carried by fleas, arrived in Italy, probably via rats on a trading ship from the eastern Mediterranean or Black seas. Within a few years, it had spread across most of Europe, reaching even as far as Greenland. It is estimated that as much as 30 percent of the European

什么问题。似乎没有任何记录表明早期的读者曾经写下诸如此类的话：“这种做书的过程太慢了；我们需要更快更好的东西。”

既然在13世纪，工匠们已经普遍了解古登堡所使用的技术，那么，为什么一种新型的制造书的方法——使用单独的字母字体来印刷大量的版本——却是发明于15世纪的欧洲，而不是在13世纪，其中的原因我们确实说不清楚。尽管我们无法解释这一发明的时间问题，但是，有一些因素表明，当这一发明出现的时候，它为什么很容易被欧洲的读者所接受。

临近1350年的时候，一种跳蚤携带的极端厉害

的致命性疾病——黑死病——在意大利出现，携带者可能是来自东地中



population died during the first plague cycle of 1347-51. Further cycles occurred periodically for more than 300 years.

Yet, there are indications that, during that same period, the number of readers increased. We might say that despite the population decline, the value of literacy became more widely accepted. New universities were founded in Prague, Vienna, Heidelberg, Cologne, Erfurt, Leipzig, and Louvain. In the decades after Gutenberg's inventions, all these towns became homes to printing shops.

Another strong hint of increasing readership in the 1400s comes from dated manuscripts. A recent survey of nearly 9,000 dated manuscripts shows a steady increase, from 1400 to 1450, in the number of surviving dated manuscripts. It was at this point that the printed book, produced in multiple copies of 100 to 300 or more, was introduced to Europe.

海或者黑海的一艘商船上的老鼠。几年之内,这种疾病在欧洲的大部分地区蔓延开来,甚至远达格陵兰岛。据估计,在黑死病的第一次发作期内,也就是1347—1351年间,欧洲丧失了高达30%的人口。在后来的300年间,黑死病又定期发作了几次。

但是,也有迹象表明,就在同一时期,读书的人数增加了。我们可以说,尽管人口在减少,文化的价值却越来越为人们所接受。布拉格、维也纳、海德堡、科隆、埃尔福特、莱比锡、鲁汶等地建立了新的大学。在古登堡发明印刷术以后的几十年内,这些地方涌现出很多的印书作坊。

15世纪读者数量增加的另外一个有力证据来自于上面标有日期的手抄本。最近,一项针对近9000本已知制作日期从1400年到1450年间的手抄本的调查表明,这些手抄本在数量上呈现了一个稳步的增加。也就是在这个时候,一次印刷100到300册甚至更多的印刷书籍被引入了欧洲。



Keep It *Secret*

by Janet Ing Freeman

保守
秘密

ABCDE
FGHIKLMNO
PQRSTVX
Z

Although Johann Gutenberg is widely celebrated as the first person in Europe to develop a method of printing with movable or reusable metal type, we know very little about either the events surrounding his invention or the man himself. What we do know comes almost entirely from legal and financial documents. While these records are often unexciting, they do hold clues to his family background and circumstances, his movements from his native Mainz in Germany to Strassburg and back again, and his business operations in both cities.

The records of a lawsuit brought against Gutenberg in 1439, while he was living in Strassburg, are among the most intriguing. In the testimony of the various witnesses we can catch a glimpse of his remarkable technical abilities.

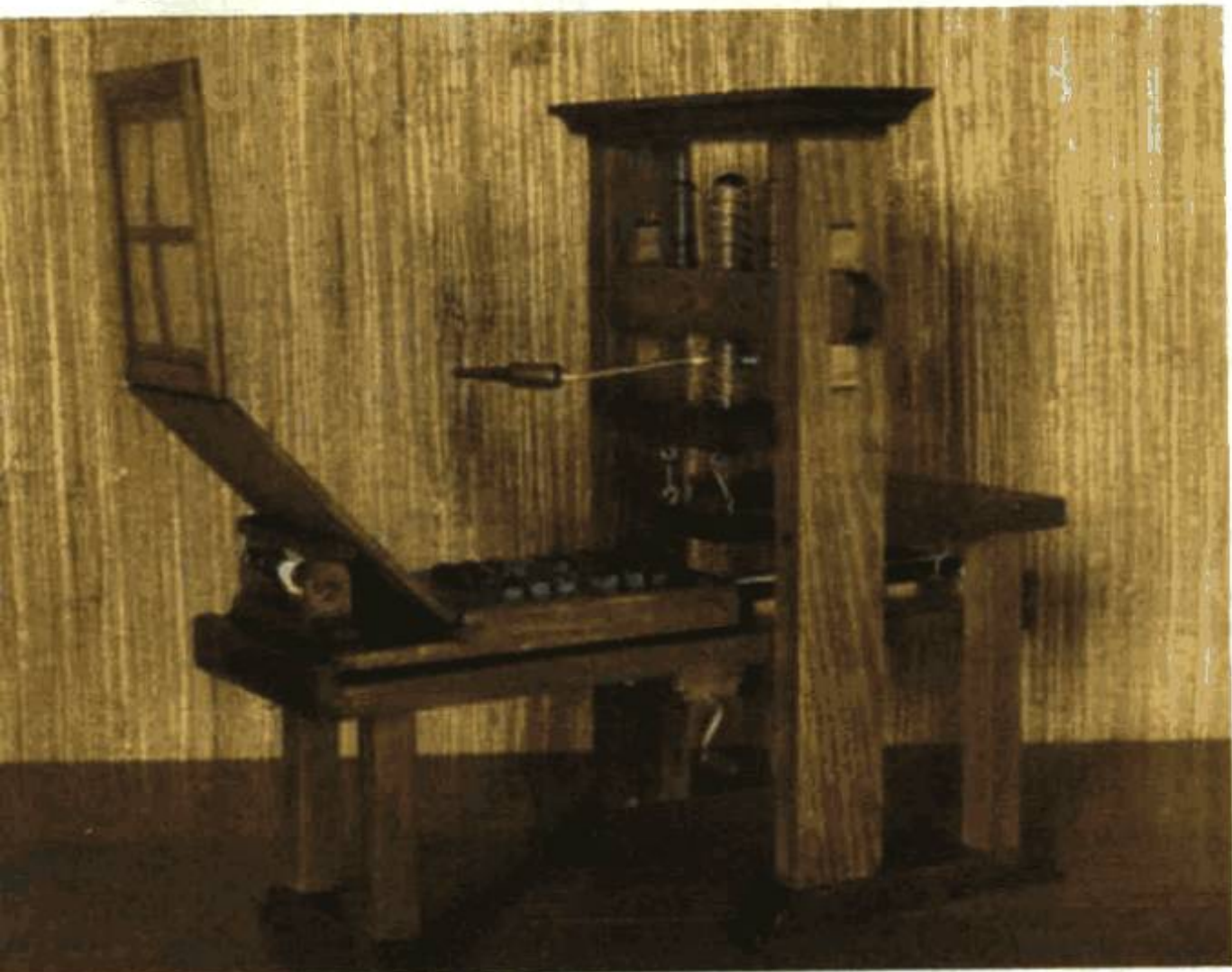
Yet, it is only a glimpse. Those who knew the details of Gutenberg's business were careful not to reveal more than was necessary. In an age when *patents* and *copyrights* were unknown, such secrecy was essential if an inventor wished to benefit from his invention, or if someone wanted to make money by teaching others a potentially profitable craft. So, although there are tantalizing hints in the

尽管人们普遍盛赞约翰·古登堡，认为他是欧洲第一个发明了一种印刷术的人——他使用了活动的或者可再次使用的金属字模，然而，对于这项发明前前后后的事情，我们知之甚少，对于他本人也没有什么了解。我们确实掌握的东西都完全来自于法律的或者财务的文件。尽管这些文件读起来经常索然无味，但关于他的家庭背景和生活环境，这些文件确实能提供一些线索，他从故乡德国的美因茨搬到斯特拉斯堡，后来又搬了回去，以及他在两座城市之间的生意往来。

其中最为有趣的是1439年有人控告古登堡的一桩诉讼案，当时他生活在斯特拉斯堡。通过各种各样的证人的证词，我们对他非同寻常的技术可见一斑。

但是，这仅仅是一个端倪。了解古登堡生意细节的人非常小心，不会多说一句话。那是个还没有专利和版权的时代，如果发明家想从自己的创造发明中获得益处，或者如果有人想通过教会其他人一个有潜在收益的技能来赚钱的话，这样的保密工作必不可少。因此，尽管1439年的证词中有一些让人干着急的线索，其中涉及一台木质印刷机、购买金属，还有一个令人迷惑

Patents and copyrights refer to the exclusive right to produce something



1439 testimony regarding a wooden press, the purchase of metal, and a puzzling device made up of four parts, we cannot say for sure that these were in any way connected with experiments in casting type or printing. Further, not one of the earliest pieces of printing in Europe can be dated to before 1454. There is no evidence that any of them were printed in Strassburg. In fact, surviving pieces all point to Mainz.

We do know that while Gutenberg was in Strassburg, he was involved in the practice of one or more mechanical crafts, such as gemcutting, and had found partners who were willing to invest substantial sums of money if he would share his secrets with them. A five-year contract had been drawn up sometime in 1438, but one of the men died suddenly before he could sign it. It was this death that led to the lawsuit against Gutenberg. The dead man's brothers hoped either to recover his investment or to take his place in the partnership. Unfortunately for them, the court decided that Gutenberg owed them only a small sum. Fortunately for historians, the records of the case survived in the city archives. Rediscovered by two local scholars in the 1740s, they were first published in 1760. This again was a fortunate occurrence because, by 1870, all of the originals had perished in fires caused by revolution and war.

的设备，它由四部分组成，但是，我们还不能确切地说，这些东西和铸造字模或者印刷实验有什么联系。而且，欧洲最早的印刷品出现的年代都晚于1454年。也没有证据表明这些印刷品中的哪个是在斯特拉斯堡印刷而成的。实际上，现存的印刷品都出自美因茨。

我们的确知道的是，当古登堡在斯特拉斯堡的时候，他参与了一项或者多项机械手艺，例如宝石切割，并且找到了愿意大量投资的合伙人，前提是他和他们分享秘密。在1438年的某个时候，他们起草了一份为期五年的合同，但是其中一个人还没来得及签字就去世了。正是他的死使得古登堡惹上了这场官司。死去的合伙人的兄弟们希望要么收回死者的投资，要么取代死者成为合伙人。那些人运气不好，因为法庭判决，古登堡只欠他们数目很小的一笔钱。历史学家则非常幸运，因为案卷在斯特拉斯堡市的档案中得以保存下来。当地的两位学者在18世纪40年代再次发现了这些案卷，并于1760年将它们公布于众。这又成为一件幸事，因为在1870年，案卷的原件在起义与战乱的大火中被毁于一炬。

At Odds with Mainz

by Janet Ing Freeman



与

美因茨

不和

