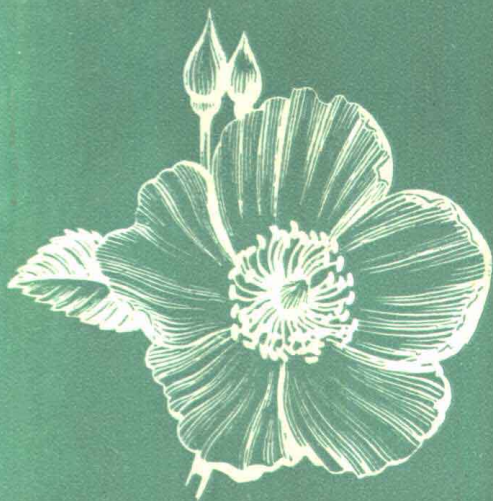


科普英语注释读物

FLOWERS, FRUITS, SEEDS

花、果实、种子

[美] B. M. Parker 著



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曹承康 译注

商务印书馆

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说 明

为适应具有初步英语基础的广大英语学习者提高英语阅读能力,实现四个现代化的需要,我们特译注了《花、果实、种子》这本科普读物。每一章节之后都附有生词表和语法注解,书末附有参考译文和总词汇表,便于读者查阅。

本书简要地介绍了显花植物的种子在栽植后如何发芽生长、开花结果等的全过程,并根据桃花的构成部分,阐述了桃树及其它显花植物为什么必须开花才能结出果实和种子的原因。本书还阐述了果实的概念、种子的结构及其撒播的方法,以及果实和种子与人们生活的密切关系。

译注者

1981年

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1. Many from One

Farmer Moore took his neighbor, Farmer Brown, out to his orchard one summer day to see his peach trees. There were many ripe peaches on the trees. He picked a big one and gave it to Farmer Brown. Farmer Brown took the peach home and ate it. He liked it so much that he decided to plant the seed.^① He planted it in his garden.

The peach seed had a very hard covering, just as all peach seeds have.^② In a few weeks a little peach tree sprouted from the seed. The little tree did not have any easy time making its way out of the hard covering.^③ It had to pry the two halves of the covering apart.^④ But after it was out, it pushed its way up through the soil easily. Soon it could spread out its leaves in the sunshine.

Year by year the little peach tree got larger. When it was five years old, it bloomed for the first time. It bloomed early in the spring before its leaves were out. There were so many blooms on the tree that it looked like a big bouquet. The blossoms were bright pink.

As soon as the peach tree was in bloom, bees visited it to get nectar from the blossoms. They went buzzing about from flower to flower.^⑤

In a few days all the blossoms were gone.^⑥ But almost every blossom left behind it a tiny, tiny, fuzzy green peach.

The leaves came out on the tree. They grew fast. In a week or so they were full-grown.

The tiny peaches were hard to see among the green

leaves.^⑦ But they grew, too. A few of them dried up and fell off the tree, but most of them hold on. By the middle of the summer the peaches that had stayed on the tree were about the size of walnuts. But they were still hard and green.

They kept on growing bigger.^⑧ At last they were about as big around as lemons. But they were still hard and green.

Very soon, however, their green color changed to yellow and pink. They became sweet and juicy and fragrant. Then they were ready to be picked and eaten.^⑨ Farmer Brown had a tree full of ripe peaches in place of the one peach Farmer Moore had given him.^⑩

Of course, every peach had a seed inside it. Every seed was ready to start a new peach tree.

New Words

farmer ['fɑ:mə] *n.* 农夫

seed [si:d] *n.* 种子

flower ['flauə] *n.* 花

neighbor ['neibə] *n.* 邻居

orchard ['ɔ:tʃəd] *n.* 果园

peach [pi:tʃ] *n.* 桃子

ripe [raip] *a.* 成熟的

garden ['gɑ:dn] *n.* 花园

hard [hɑ:d] *a.* 硬的;困难的

covering ['kʌvəriŋ] *n.* 外壳

sprout [spraut] *v.i.* 发芽

pry [prai] *v.t.* 撬;使移动

half [hɑ:f] *n.* 半

push [puʃ] *v.t.* 推

soil [sɔil] *n.* 土壤

leaf [li:f] *n.* 叶

sunshine ['sʌnʃain] *n.* 日照

bloom [blu:m] *v.i., n.* 开花;花

spring [sprɪŋ] *n.* 春天

blossom ['blɒsəm] *n.* 花

bouquet ['bukei] *n.* 花束

pink [piŋk] *n., a.* 粉红色(的)

bee [bi:] *n.* 蜜蜂

nectar ['nektə] *n.* 蜂蜜

buzz [bʌz] *v.i.* 嗡嗡地叫

behind [bi'haind] *prep.* 在...后面

tiny ['taini] *a.* 微小的

fuzzy ['fʌzi] *a.* 有细毛的

fast [fɑ:st] *ad.* 快

full-grown ['fulgrəʊn] *a.* 发育完

全的
about [ə'baʊt] *prep.* 大约
size [saɪz] *n.* 大小, 尺寸
walnut ['wɔ:lnʌt] *n.* 胡桃
around [ə'raʊnd] *prep.* 大约; 在

…周围
lemon ['lemən] *n.* 柠檬
however [haʊ'evə] *ad.* 然而
juicy ['dʒu:si] *a.* 多汁的
fragrant ['frei:grənt] *a.* 芳香的

Phrases and Expressions

(to) make one's way 开出一条路	(to) dry up 变干
(to) push one's way 挤出一条路	full of 充满…的
(to) spread out 伸出; 长出	(to) be ready to 快要…的
year by year 年复一年	in place of 代替
or so …左右	of course 当然

Notes

- ① so ... that he decided to plant the seed:
这是一个由 so (在主句中) that 连接的结果状语从句, 修饰主句中的谓语动词 liked.
- ② just as all peach seeds have:
这是一个由连接词 as 连接的行为方式状语从句, 在谓语动词 have 后省略了和主句中相同的宾语 a very hard covering.
- ③ making its way out of the hard covering:
这是一个现在分词短语, 作修饰 did not have an easy time 的状语。
- ④ pry the two halves of the covering apart:
apart 在这里用作宾语的补足语。
- ⑤ buzzing about from flower to flower:
这是一个现在分词短语, 作修饰谓语动词 went 的状语。
- ⑥ were gone:
gone 是 go 的过去分词, 在这里用作表语, 表示主语所处的状态。
- ⑦ to see among the green leaves:
这是一个不定式短语, 在句中作状语, 修饰作表语的形容词 hard, 说明在哪一方面存在表语所表示的情况。

⑧ growing bigger:

growing 在这里是动名词, 为短语动词 keep on (继续) 所要求;
grow 本身为系词, 意思是“…起来”, bigger 为其表语。

⑨ to be picked and eaten:

这是不定式的被动形式, 在句中用作状语, 修饰 ready.

⑩ Farmer Moore had given him:

这是一个省略了引导词 which (或 that) 的定语从句, 修饰名词 peach.

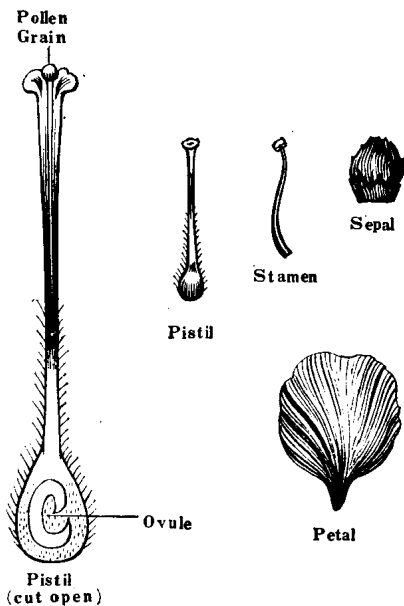
2. How Peaches Come from Peach Blossoms

As the story of Farmer Brown's peach tree showed you, peaches come from peach blossoms. If a peach tree does not bloom, it cannot have any peaches on it. But how can a peach blossom produce a peach? To see how, ① we must know about the parts of the blossom.

A peach blossom has five deep-pink petals. In the center of the flower there is something that looks like a little, very fuzzy green vase with a tall neck. This is the pistil. Around the pistil there are many little pink stems with sacs full of yellow "dust" at the top. They are stamens. The yellow "dust" is pollen.

Outside the petals there are five small, reddish-green "leaves" that are also part of the flower. They are sepals. While the flower is still a bud, the sepals cover up the petals, stamens, and pistil.

Down inside the pistil there are two tiny bodies shaped



Pic 1

like eggs.^② They are ovules. They are the beginnings of seeds.

The little pictures on page 5 show how the different parts of a peach blossom look.

As soon as a blossom opens, insects come to it to get nectar. Suppose a bee is getting nectar.^③ Its body touches the top of some of the stamens. Some of the yellow pollen sticks to the hairs on the bee's furry body. The bee's body touches the top of the pistil, too. The top of the pistil is sticky. Probably the bee's body where it touches the pistil has some pollen from another peach blossom on it. Some of this pollen sticks to the pistil. If the first insect visitor does not leave any pollen on the pistil, another is almost sure to.^④

From the grains of pollen left on the pistil, little tubes grow down the long neck of the pistil. The large picture on page 5 shows a pistil cut in two and a pollen tube growing down the neck. At last one tube reaches one of the ovules in the bottom of the pistil. All the living material that was in the tiny pollen grain goes down through the tube and joins the ovule. The ovule is now ready to grow into a seed.

The ovule begins at once to grow into a seed. The other ovule that was in the pistil dries up. It never becomes a seed.

Soon the blossom's beautiful pink petals fall off. The stamens fall off. The sepals fall off. The top part of the pistil falls off. At last nothing is left but the lower part of the pistil and the ovule inside it that is growing into a seed.^⑤

As the ovule is being changed to a seed, the wall of the lower part of the pistil is being changed, too. The inside

layer of the wall becomes the hard, rough covering of the peach seed. The outside layer of the wall becomes the fuzzy skin of the peach. The middle layer becomes the part of the peach we eat.

All peaches are formed in exactly the same way. Every one comes from the pistil of a peach blossom. Do you see now why a peach tree that does not bloom cannot have any peaches on it?

New Words

part [pɑ:t] <i>n.</i> 部分	egg [eg] <i>n.</i> 蛋
deep-pink [di:p piŋk] <i>a.</i> 深粉 红(色)的	ovule ['əuvju:l] <i>n.</i> 胚珠
petal ['petl] <i>n.</i> 花瓣	beginning [bi'giniŋ] <i>n.</i> 起源
center ['sentə] <i>n.</i> 中心	insect ['insekt] <i>n.</i> 昆虫
vase [vɑ:z] <i>n.</i> 瓶	touch [tʌtʃ] <i>v.t.</i> 接触
neck [nek] <i>n.</i> 颈	stick [stik] <i>v.i.</i> 粘附
pistil ['pistl] <i>n.</i> 雌蕊	furry ['fə:ri] <i>a.</i> 毛皮似的
stem [stem] <i>n.</i> (叶)梗, 茎	sticky ['stiki] <i>a.</i> 粘性的
sac [sæk] <i>n.</i> 囊	probably ['prɒbəbli] <i>ad.</i> 大概, 或许
dust [dʌst] <i>n.</i> 粉末; 花粉	sure [ʃuə] <i>a.</i> 一定的
stamen ['steimen] <i>n.</i> 雄蕊	tube [tju:b] <i>n.</i> 管
pollen ['pɒlin] <i>n.</i> 花粉	living ['liviŋ] <i>a.</i> 有生命的
reddish-green ['rediʃ gri:n] <i>a.</i> 淡红绿的	but [bʌt] <i>prep.</i> 除...外
sepal ['sepəl] <i>n.</i> 萼片	as [æz] <i>conj.</i> 正当
bud [bʌd] <i>n.</i> 芽	layer ['leiə] <i>n.</i> 层
body ['tɒdi] <i>n.</i> 躯体	rough [rʌf] <i>a.</i> 粗的
shape [ʃeip] <i>n.</i> 形状	skin [skɪn] <i>n.</i> 皮

Notes

- ① To see how, ...:

how 在这里是一个连接副词，根据上文意思可知它连接的是个句子：how a peach blossom can produce a peach，作不定式 to see 的宾语。

② shaped like eggs:

这是一个过去分词短语，用作修饰 bodies 的定语。

③ Suppose a bee is getting nectar:

这是个祈使句，a bee is getting nectar 作 suppose 的宾语。

④ another is almost sure to:

这是一个省略句，在 to 后省略了 leave some pollen on the pistil.

⑤ At last nothing is left but ...:

but 在这里是介词，作“除…外”解。

3. A Story without an End

A seed is planted. The plant that comes from the seed blooms. The flowers produce fruits and seeds. The seeds, if they are planted, produce new plants. The new plants bloom. The flowers produce fruits and seeds. The seeds produce new plants. The story goes on and on. The circle of plant, flower, fruit-seed is repeated over and over again.

This story of plant, flower, fruit-seed is the story of peach trees.

It is the story of pumpkin vines and of thousands and thousands of other plants, too. It is not true of all plants, because not all plants bloom. It is the story of the plants we call the flowering plants.

Flowers help make the earth beautiful.^① But plants do not have flowers just so that we can look at them.^② The flowers have a real job to do.^③ Their job is to produce seeds. The job of the seeds, of course, is to produce new plants much like those they came from.^④

Suppose all the flowering plants in the world stopped blooming. Then no seeds of these plants could be formed, and most of the flowering plants would disappear from the earth. Not all the flowering plants would disappear, because some of them can be raised in other ways. Some can be raised from bulbs. Some can be raised from underground stems. Some can be raised from roots. Some can be raised from small branches, or cuttings. Some can be raised even from leaves. Some flowering plants are usually raised in

other ways than by planting seeds. Geraniums, potatoes, and tulips are among them. But almost all the flowering plants that can be raised in other ways can be raised from seeds, too.

You remember that many peach seeds came from the one that Farmer Brown planted. "Many seeds from one" is the rule among the flowering plants. If a plant produced only one seed, that one seed might not find a place to grow.① A flowering plant produces many seeds so that its story of plant, flower, fruit-seed will go on and on.②

New Words

circle ['sə:kɪl] <i>ad.</i> 循环	地下的
repeat [ri'pi:t] <i>v.t.</i> 重复	branch [bræntʃ] <i>n.</i> 枝
pumpkin ['pʌmpkin] <i>n.</i> 南瓜	cutting ['kʌtɪŋ] <i>n.</i> 插条, 插枝
vine [vaɪn] <i>n.</i> 藤	geranium [dʒi'reɪniəm] <i>n.</i> 天竺葵
flowering ['flaʊəriŋ] <i>a.</i> 开花的, 显花的	potato [pə'teɪtəʊ] <i>n.</i> 马铃薯, 土豆
disappear [dɪsə'piə] <i>v.i.</i> 消失	tulip ['tju:lɪp] <i>n.</i> 郁金香
raise [reɪz] <i>v.t.</i> 种植	rule [ru:l] <i>n.</i> 规则
bulb [bʌlb] <i>n.</i> 鳞茎	
underground [ʌndə'graʊnd] <i>a.</i>	

Phrases and Expressions

on and on 继续不断地	so that 为了; 因此
over and over 三番五次地	other ... than ... 除...之外

Notes

- ① Flowers help make the earth beautiful:
beautiful 在这里是动词 make 的宾语 the earth 的补足语。
- ② so that we can look at them:

so that 在这里连接的是目的状语从句。

③ a ... job to do:

不定式 to do 在这里作 job 的定语。

④ much like those they came from:

like those 为介词短语作定语, 修饰前面的名词 plants; they came from 为省略了引导词 which 的定语从句, 修饰代词 those.

⑤ If a plant produced only one seed, ...to grow:

这是一个虚拟条件句, 从句中谓语动词用的是过去式 produced, 主句中谓语动词为 might + 动词原形 (might not find)。

⑥ so that its story of plant, flower, fruit-seed will go on and on:

so that 在这里连接的是结果状语从句, 参较注②和第一课中的注①。

4. Flowers

A peach blossom, you have found out^①, is made up of sepals, petals, stamens, and a pistil. Many other flowers have these same four kinds of parts. The petals of the trillium flower are white. The sepals are green. They show between the petals. The stamens have sacs full of yellow pollen at the top, just as the stamens of peach blossoms have. The top of the pistil shows in the very center of the flower.

The tulip has the same four kinds of parts, too. But it is not easy to find all four.^② It is not easy^③ because the sepals and the petals look exactly alike. In a peach blossom the sepals are reddish green. In a trillium flower they are bright green. In a tulip they are the same color as the petals. The only way of telling which is which is to see which ones are fastened to the stem outside the others.^④ The three inside ones are the petals. The three outside ones are the sepals.

The pollen of the tulip is not yellow. It is dark purple. The pistil in the middle of the flower is easy to see.

The water lily is another flower that has the same four kinds of parts. This flower has green sepals and pink petals. The petals are about the same color as the petals of peach blossoms, but you would never get a peach blossom and a pink water lily mixed up.^⑤ A water lily is very much larger than a peach blossom. Besides, it has many, many petals. A peach blossom, you remember,^⑥ has only five petals. Both the water lily and the peach blossom have many