参考译文

Old Art Offers Agriculture Info

古艺术品提供农业信息

Pieter Bruegel’s iconic 1565 painting The Harvesters hangs at the Metropolitan Museum of Art in New York City. The work depicts peasants cutting stalks of wheat nearly as tall as they are.

彼得·勃鲁盖尔1565年的标志性画作《矿主》在纽约大都会艺术博物馆展出。这幅作品描绘了农民收割麦秆的情景，而麦秆几乎和人一般高。

“Nowadays, if you walk through a wheat field, you basically see that wheat is about knee-height. The short stature is essentially a consequence of breeding from the second half of the 20th century.”

“如今，现在走过一片麦田，基本上看到的小麦只有膝盖那么高。这种身材矮小的小麦基本上是20世纪下半叶繁殖的结果。”

University of Ghent biologist Ive De Smet.

根特大学生物学家Ive De Smet说道。

Selective breeding favored genes for reduced height, because they came along with genes for increasing yields to feed a growing population. De Smet says wheat is just one example of how historical artwork can allow us to track the transformation of food crops over time. He teamed up with art historian David Vergauwen of Amarant to catalogue such artwork around the world.

选择性育种倾向于降低身高基因，因为身高基因与增加产量的基因同时出现，这样可以养活不断增长的人口。De Smet说，小麦作为历史艺术品是让我们追踪粮食作物随时间变化的一个例子。他与阿玛兰特的艺术历史学家大卫·维高文合作，对世界各地的此类艺术作品进行编目。

“We have been mainly looking at things where we kind of can spot changes in shape, in color, in size.”

“我们主要研究的是能够察觉形状、颜色和大小变化的东西。”

Friends since childhood, their interest in plants in artwork began with a visit to the Hermitage Museum in St. Petersburg, Russia—where they noticed an odd-looking watermelon in an early-17th-century painting by Flemish artist Frans Snyders.

他们从小就是朋友，在参观了俄罗斯圣彼得堡的冬宫博物馆后，两者对植物艺术作品的兴趣就开始了。在那里，他们注意到17世纪早期弗兰德斯艺术家弗兰斯·斯奈德的一幅画中有一个长得很奇怪的西瓜。

“So if you think of a watermelon, you cut it through, it should be dark red on the inside. But that one appeared to be pale and white.”

如果想到一个西瓜，把它切开，它的内部应该是暗红色的。但是画里的西瓜却是苍白的。”

Biologist De Smet assumed the painter had done a poor job. But art historian Vergauwen had a different idea.

生物学家德·斯梅特认为画家画得很差。但艺术历史学家维高文有不同的看法。

“He says, ‘No, this is one of the best painters ever from that era. So if he paints it like that, that’s the way it must have looked like.’”

“他说，‘不，这是那个时代最好的画家之一。所以如果把它画成这样，它就一定是这个样子。’”

Other paintings revealed that both red and white watermelons were cultivated during the 17th century. The color is determined by a gene that controls the pigment lycopene.

其他画作显示，红色和白色的西瓜都是在17世纪种植的。番茄红素的颜色是由控制番茄红素的基因决定的。

“There must have been some sort of mutation preventing the accumulation of that color. Now, with all the genetic knowledge that we have from various plant species, we can look in more detail how something comes about.”

“一定有某种变异阻止了这种颜色的积累。现在，有了各种植物的遗传知识，我们可以更详细地了解事情是如何发生的。”

For example, De Smet says carrots first started to be depicted as orange only in the 16th century, thanks to selective breeding for the beta-carotene pigment. And until the 18th century, European strawberries appear tiny in paintings—they then grew in size with the advent of crossbreeding with North American varieties.

例如，德·斯梅特说，直到16世纪，胡萝卜才开始被描绘成橙色，这多亏了对-胡萝卜素色素的选择性培育。直到18世纪，欧洲的草莓在绘画中还显得很小，后来随着与北美品种杂交的出现，它们的尺寸也增大了。

The research is in the journal Trends in Plant Science.

这项研究发表在《植物科学趋势》杂志上。

Ultimately, the team hopes to create an online research database of historical plant artwork. They seek the contributions of art enthusiasts around the world via the social media hashtag #artgenetics. But, they caution, the source paintings need to be realistic.

最终，该团队希望创建一个历史植物艺术品的在线研究数据库。他们通过社交媒体标签“艺术遗传学”寻求世界各地艺术爱好者的贡献。但是，他们警告说，原始绘画需要真实。

“If you're going to use, for example, Picasso to try and understand how a pear looked in the early 20th century, you might be misled.”

“比如，如果你打算用毕加索(Picasso)的作品来尝试理解20世纪初的梨是什么样子，你可能会被误导。”

Indeed, such an attempt could be fruitless.

事实上，这样的尝试可能是徒劳的。

听力原文

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