

The Li Jiawan Grand Ginkgo King

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The largest *Ginkgo biloba* tree in the world, the Li Jiawan Grand Ginkgo King, is located about a hundred kilometers west of Guiyang, the capital of Guizhou Province, China. The tiny hamlet of Li Jiawan (26°39' N and 107°25' E) is too small to appear on any maps. Administratively, Li Jiawan is part of Lebang Village, which is part of Huangsi Town in Fuquan County.

The Grand Ginkgo King is growing at an altitude of 1,300 meters (4,265 feet) in a narrow valley where it towers over the surrounding bottomland vegetation, which consists mainly of cultivated crops (Figure 1). It is a male tree, about 30 meters (98 feet) tall, with a ground level trunk diameter of 460 centimeters (181 inches) in the east–west orientation and 580 centimeters (228 inches) in the north–south direction. Its circumference at breast height is 15.6 meters (51 feet) and its canopy shades an area of roughly 1,200 square meters (13,000 square feet). The primary “trunk” is completely hollow and encloses an area of 10 to 12 square meters (108 to 130 square feet), more than enough for seating a dinner party of ten people. Indeed, during the 1970s, an old man by the name of Pan Shexiang, accompanied by his cattle, lived in this natural tree cave for two years.

The inside of the trunk—up to a height of about 5 meters (16 feet)—is charred black from lightning-ignited fires (Figure 2). The outside of the trunk shows no signs of fire, but has a ragged appearance caused by the excessive amount of callus tissue that has formed between the new branches and old trunks. In addition, large hanging chichi (downward growing shoots that look something like stalactites) have developed in response to various wounds and breaks, adding more confusion to the convoluted woody excrescences that cover the trunk. As battered as the outside of the tree appears, however, it maintains a vigorous hold on life, as attested to by the presence of

numerous young shoots sprouting out all over the tree (Figures 2 and 3).

Chinese investigators have determined that the Grand Ginkgo King is a “five-generations-in-one-tree” complex. In other words, the first generation was a normal seedling which—as a result of repeated sprouting from the base over the course of several millennia—produced four succeeding generations of trunks, each of which has continued the tree’s growth and development after the preceding generation was damaged or died (Figure 4). The tree, as we know it today, is the result of at least five generations of stems produced over the course of thousands of years. There are five distinct trunk sectors which are separate at ground level but are partially merged at the height of about a meter (3.3 feet) above the ground, and new branches often sprout from the tissue between trunk sectors. While each trunk section seems to be physiologically independent, the secondary fusion creates the appearance of a single tree (Figures 2 and 3).

Age Estimation

Extensive field work has shown that the Li Jiawan Grand Ginkgo King is the biggest (in terms of trunk diameter) ginkgo tree in the world, a fact that was recognized by the Guinness Book of World Records in 1998. The question of how old the tree might be is unclear given that its internal tissues—with all their growth rings—are totally gone. What we do know, however, is that ginkgo trees of different ages have very different appearances and growth characteristics, and that different generations of ginkgo trunks typically have different growth rates and different longevities. We have come up with a rough estimate of the Grand Ginkgo King’s age based on what we know about the ages of other ancient ginkgo trees in China with a similarly complex developmental history: the first generation stem(s) can typically reach up to 1,200 years of age, the



Figure 1. The Li Jiawan Grand Ginkgo King as it appeared in September 2002.

second generation stems live for about 1,000 years, the third 800 years, the fourth 600 years, and the fifth about 400 years. According to this highly theoretical formula, the Li Jiawan Grand Ginkgo King has a maximum estimated age of around 4,000 to 4,500 years.

Legends and Romance

The Grand Ginkgo King has been living for thousands of years without an official record in the history books of the local government. However, there are many folk legends surrounding this tree. Writer Shixian Xu described one of these legends:

During the Tang dynasty there was a scholar named Bai who had recently gained a governor's position by winning a national competition. At some point after taking office, Bai had a fight with a treacherous court official who had done a lot of bad things to the ordinary people. Given that bad officials typically protect each other, the scholar Bai was punished for his actions and sent off to an isolated army camp. On the way

there, he was severely beaten and eventually died from his wounds. His body was buried at Li Jiawan by the local people, who deeply loved this scholar who tried to help ordinary people. Soon afterwards, a huge tree grew out from the tomb. This tree was considered the avatar of scholar Bai and given the name "bai guo tree" (one of the Chinese names for *Ginkgo biloba*).

Another story about the origin of the tree dates from the Ming dynasty and holds that the Li Jiawan Grand Ginkgo tree transformed itself into a scholar and entered a national competition. The tree-scholar won the championship and was appointed to be a high official by the king. When the tree-scholar failed to show up for the position, the king sent two messengers to find him, both of whom were killed when they came back empty handed. The third messenger that the king sent was worried about his own safety since he too could find no trace of the mysterious scholar. During his disturbed sleep one night, he had a dream in which a person appeared calling himself "Bai." At this point

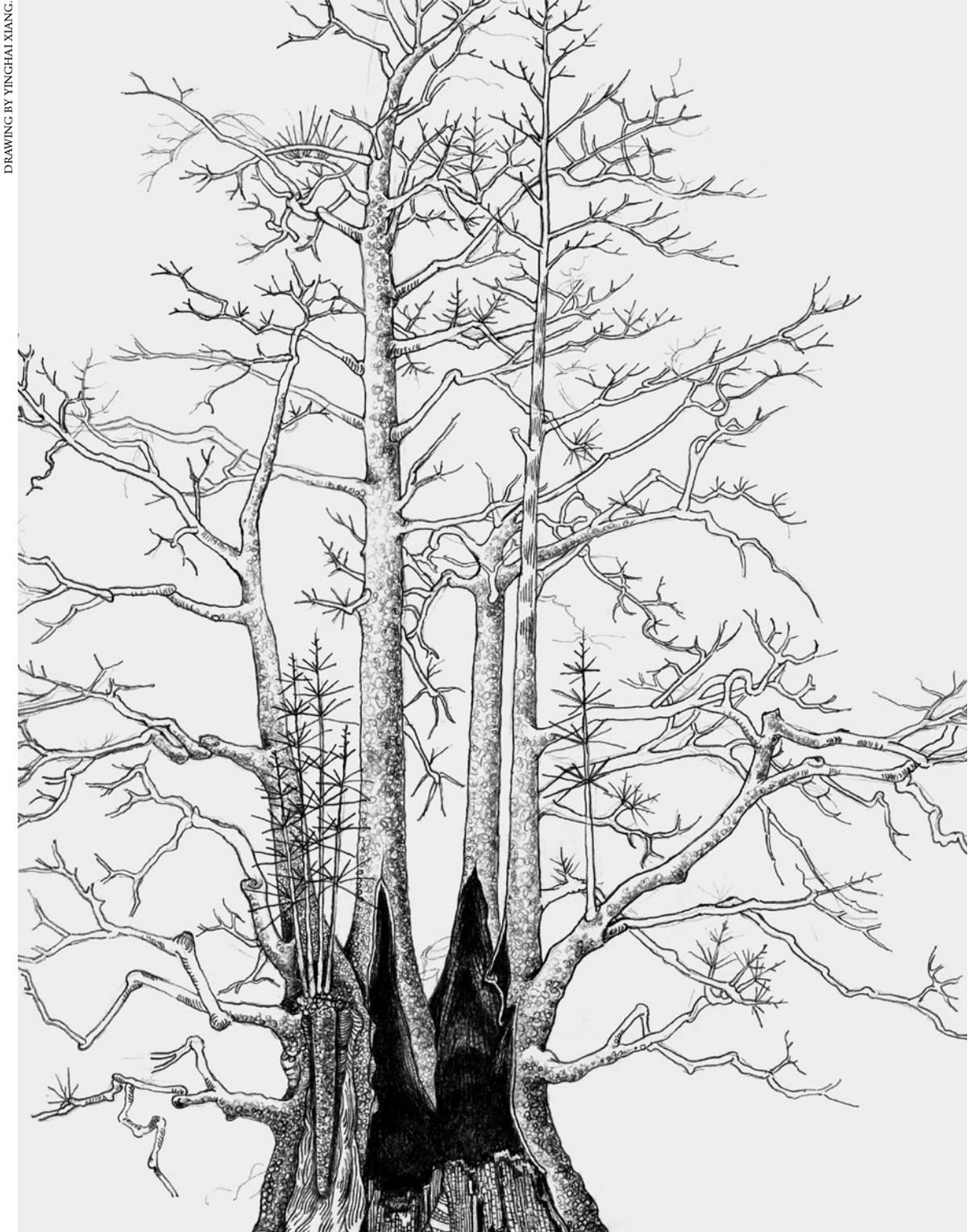


Figure 2. The Li Jiawan Grand Ginkgo King.



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Figure 3. The multi-generational trunk of the Li Jiawan Grand Ginkgo King.

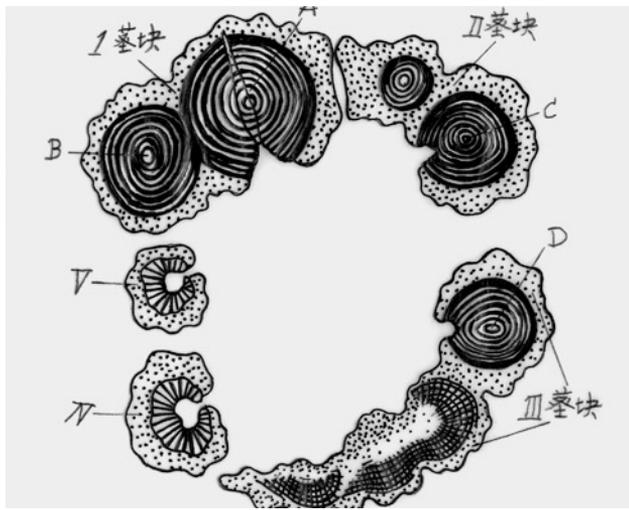


Figure 4. A cross-section of the Li Jiawan Grand Ginkgo King at ground level: Part 1 has two trunks: A, 30 meters (98 feet) tall, 110 centimeters (43 inches) diameter; B, 20 meters (66 feet) tall, 90 centimeters (35 inches) diameter; Part 2 has produced trunk C with a height of 28 meters (92 feet) and diameter of 80 centimeters (31 inches); Part 3 has trunk D of height of 28 meters (92 feet) and diameter of 60 centimeters (24 inches). The smallest and youngest trunks, Parts 4 and 5, have produced many small, weak stems, only a few meters tall, which seem to have lost their capacity to grow into upright trunks.

the messenger woke up and saw an official's hat hanging on the top of a nearby ginkgo tree and immediately understood that the scholar and the tree were one and the same.

This story—that the ginkgo tree had changed to a spirit—is an astonishing, age-old story, and there are lots of “big tree changed to spirit” stories in the south of China. Luckily, people usually worship such “spirit trees” and don't dare to damage them. Many of these trees grow in temple courtyards or on sacred mountains and are preserved out of respect for the spirits that inhabit them but, unfortunately, this kind of conservation is not good enough to protect trees in the modern world.

What the Future Holds

The Li Jiawan Grand Ginkgo King was seriously damaged and its overall appearance dramatically changed by a storm in July, 1991, in which the biggest trunk on part 2 was broken off (Figure 4). The stem was pruned off below the break, but the resulting scar still looks fresh with no sign of callus growth to cover it over. It is also worth noting that for eighteen years

there have been no new sprouts from part 3. Such a loss of normal regenerative function suggests that the Li Jiawan Grand Ginkgo may be losing its vigor. Based on what we have seen of other multigenerational trees, it is predictable that the Li Jiawan Grand Ginkgo will get smaller over time rather than bigger and that in 50 to 100 years or so it will be dead.

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