

Hibaku Trees of Hiroshima*

Photographs by Hiromi Tsuchida. Text by Peter Del Tredici

A series of striking photographs presents the trees that survived the atomic bomb blast of August 6, 1945.

In this era of constant global crises, it's easy to forget that it is not the earth that is endangered by human activities so much as humanity itself. Over the course of three and a half billion years of environmental fluctuations and catastrophes, organisms of all types have developed tremendous powers of regeneration. Some species, typically referred to by humans as weeds, seem especially adept at not merely surviving severe disturbance, but of actually flourishing in the face of it. These organisms are all too familiar to most people and, in the temperate world, include such well-known creatures as rats, cockroaches, dandelions, and purple loosestrife.

Regardless of what fate awaits the earth, it is clear that life will go on, with or without people. Nowhere is this truth more evident than in Hiroshima, Japan, the first city on the planet to experience the full force of a nuclear bomb on August 6, 1945. In most people's minds the detonation of an atomic bomb connotes total and absolute destruction, yet this was hardly the case. At the hypocenter of the blast, the devastation was indeed complete, yet just a few hundred meters away many people, as well as many plants and animals, survived, albeit seriously damaged.

I have long wondered about the trees that survived the atomic bomb blast, curious to

know which species were most resilient to the shock wave and fireball that were responsible for the most serious damage. My interest in this question was first whetted when I read about a ginkgo tree growing in the Hiroshima "Peace Park," a few hundred meters from the hypocenter, that supposedly had survived the atomic bomb blast (see P. F. Michel, *Ginkgo Biloba: L'Arbre Qui A Vaincu Le Temps*, 1986). While attempting to validate the truth of this report (which I was unable to do), I came across the work of the Japanese photographer Hiromi Tsuchida, who has meticulously documented the existence of many authentic *hibaku* trees.

Hiromi Tsuchida was born in Fukui, Japan, in 1939. He has published a massive three-part photographic work about Hiroshima, produced between 1976 and 1983, that focuses on the history and memory of the atomic bomb. Using hundreds of pictures, he presents a systematic and measured chronicle of the aftermath of the atomic apocalypse. Not only has Tsuchida photographed the trees that survived the bomb, but also the people and their personal belongings. Tsuchida's photographs illustrate the human dimensions of the tragedy and transform everyday objects into horrifying images of a deadly nightmare.

Looking at Tsuchida's photographs of trees, the sense of tragedy gives way to a sense of

* *Hibaku* is a Japanese word meaning "something that has experienced a nuclear bomb." Typically it is used in the form *hibakusha* meaning "people who have survived a nuclear bomb."

wonder at the indomitable vitality of life. These are the true survivors, plants that can withstand the worst humanity has to offer. While it is impossible to say why one particular individual survived while others didn't, studies done by Japanese scientists in the years immediately following the bombing have generated a list of those trees that showed the greatest powers of survival. Most of these reports are written in Japanese and have had very limited distribution, but their content was summarized in English in the remarkable book *Hiroshima and Nagasaki: The Physical, Medical, and Social Effects of the Atomic Bombings*, published in 1981 by Basic Books. Quoted

below is the section that deals with the effects on trees:

The degree of damage [to trees] was quite different by direction. At places far from the hypocenter, only the side of the tree trunk facing the hypocenter was burned, while the opposite side was frequently normal in appearance. In some trees, there were no branches on the side facing the hypocenter, while the other side had many branches.

Damage to plants was found only in the portions exposed aboveground, and portions underground were not directly damaged. Consequently, the root and the underground stalk put forth new buds even in those whose aboveground portion was completely burned. New buds were



Pine tree (Pinus thunbergii), Sumiyoshi Shrine, 1,400 meters from the hypocenter, photographed in 1985.

found coming out from the stumps of trees, which were standing burned without any branches. These sights were seen two months after exposure to the atomic bomb at the time of the primary survey. New buds did not sprout from the damaged side of the trees within 700 meters of the hypocenter. Regeneration differed greatly by species of plants: some regenerated rapidly, while others withered. Broad-leaved trees in general regenerated actively, especially *Cinnamomum camphora* (camphor tree), *Melia azedarach* var. *japonica* (chinaberry), willow, *Robinia pseudoacacia* (black locust), Chinese parasol [*Firmiana simplex*], fig tree, hemp palm [*Trachycarpus fortunei*], sago palm [*Cycas revoluta*], ginkgo, eucalyptus, *Euonymus*

japonica (spindle tree), *Fatsia japonica* [Japanese aralia], *Celtis sinensis* var. *japonica* (nettle tree), *Nerium indicum* (oleander),* azalea, and bamboo. . . . The poorly resistant herbs were needle-leaved trees such as Japanese cedar [*Cryptomeria japonica*] and pine. Cedar and pine forests far from the hypocenter were frequently reddish in color, and trees apparently normal during the first year sometimes withered the following year. This tendency was especially marked with *Pinus densiflora* (Japanese red pine).

What follows, then, are Hiromi Tsuchida's portraits of trees of indomitable vitality—*hibaku* trees that survived man's inhumanity not only to himself but to the entire living world.



The same tree photographed in 1993.

* The oleander has been designated the official flower of the city of Hiroshima for its remarkable powers of regeneration. Kiyoshi Hashimoto, director of the Hiroshima Botanical Garden, explains that after the disaster, it seemed that nothing could grow for at least three decades. But *Nerium indicum* bloomed the next year! Its flowers encouraged the citizens, and since then, every summer it has consoled the victims in their misfortune.



Above: Camphor tree (Cinnamomum camphora), 1,200 meters from the hypocenter, photographed in 1979. Below: The same tree photographed in 1993.





Above: Willow tree (Salix sp.), Hijigamahoncho, 1,600 meters from the hypocenter, photographed in 1993. Below: Ginkgo tree (Ginkgo biloba), Shukukeien garden, 1,400 meters from the hypocenter, photographed in 1993.





Map of Hiroshima. The star marks the hypocenter of the atomic bomb blast. Circles indicate the distances 1 kilometer, 2 kilometers, 3 kilometers from the hypocenter. Adapted from Hiroshima by Hiromi Tsuchida, Kosei Publishing Co., 1985.

- A** Eucalyptus tree (*Eucalyptus* sp.)
- B** Camphor tree (*Cinnamomum camphora*)
- C** Ginkgo tree (*Ginkgo biloba*)
- D** Pine tree (*Pinus thunbergii*)
- E** Willow tree (*Salix* sp.)



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