



## Premio Internazionale Carlo Scarpa per il Giardino

XXVII Annual Award, 2016

### The wild apple forests of the Tien Shan

#### Citation

The Scientific Committee of the Fondazione Benetton Studi Ricerche has decided unanimously to dedicate the twenty-seventh International Carlo Scarpa Prize for Gardens to the *Wild apple forests of the Tien Shan*, in Kazakhstan.

On the slopes of the Tien Shan mountain range near the eastern edges of Central Asia lie the scattered remnants of a vast ancient forest that was home, millions of years ago, in the Tertiary, to dozens of the species that would give rise to the fruits accompanying humans throughout their history. The woodlands stretching from the Xin Jian region in western China, across northern Kyrgyzstan and Uzbekistan, and right down to south Kazakhstan are dominated by the wild apples that gave the former capital of Kazakhstan its name: Almaty, or “Fatherland of Apples”.

The earliest precursors of the apple tree probably reached the area via seeds carried there by birds from China, resulting in a huge variability that was further enhanced by the environmental diversity of the Tien Shan mountain range and in an extraordinary biodiversity that persists today despite thousands of years of deforestation and fires to clear land for farming. This biodiversity expresses itself in fruits of many different shapes, sizes, flavours, and colours, and in trees with differing heights and habits. It represents a genetic pool of immeasurable interest for nascent studies and research projects that could be key to the future of apple cultivation and landscape. The wild apple of Kazakhstan is called *Malus sieversii* after the botanist Johann Sievers who discovered the species in the late eighteenth century.

*Malus sieversii* is the dominant wild fruit species in the forests of Kazakhstan. Mountains up to 7,000 metres, deep valleys carved out by over two hundred rivers, plateaus and slopes with different orientations leading to vast differences in temperature and humidity cause its diversity to assume different forms in response to the different growing conditions. In the northernmost region, in the Tarbagatay mountains, you can find stands ranging from ten to two hundred trees, some growing on steep slopes and reaching as far as the snow line. In the Djungarsky area, wild apple trees dominate huge forests, enriching their biodiversity and reaching incredible ages and heights – some are as old as three hundred and fifty years, while the tallest can reach 30 metres in height. In the Aksu Zhabagly area, on the border with Kyrgyzstan, there are isolated apple trees and small groves that are highly resistant to disease and drought, even extreme drought conditions. Although large areas of these three forests have been cleared for pasture or farmland, they have not suffered like the Zailiysky area, the part of the Celestial Mountain range closest to Almaty, where up to eighty per cent of the forests at the foot of peaks soaring up to 7,000 metres was lost in the Soviet period. These are the forests that attracted the attention of Aimak Dzangaliev (1913-2009), who studied the Kazakh population of *Malus sieversii* from 1930 to 2009. An agronomist and scientist, he was also dedicated to safeguarding this species, which was constantly endangered by the threat of land speculation hanging over the wild apple forests, but also by a kind of hostility that saw him as the heir to Nicolai Vavilov, the great Russian geneticist who, during his expeditions all over the world, succeeded in locating the places of origin of the world’s main cultivated species. He identified Turkistan (the region comprising most of the Central Asian countries where the wild apple grows) as the centre of origin of the domestic apple. After years of international scientific recognition, Vavilov fell into disgrace with the authorities of Stalinist Russia and died in prison. Dzangaliev, who himself faced many hurdles, right up to the last years of his life, was his student, and since 2010, Alma, the association promoted by Catherine Peix and Tatiana Salova – Aimak’s widow – has

been committed to raising the awareness of the local government and of the international community in order to diffuse knowledge and conserve both the wild apple forests and the memory of Aimak Dzangaliev.

The *Malus sieversii* apple trees studied by Vavilov and Dzangaliev are the ancestors of what is now the world's leading fruit crop, both in terms of production and surface area, in temperate zones. Kazakhstan is the place of origin of the apple. Archetype of all fruits, symbol of fertility, immortality, love and beauty, wealth and power, knowledge and damnation, the apple has been identified as the fruit that Eve tempted Adam with, the fruit "sweet to [the] palate" in the Song of Solomon, the golden apple of the Hesperides, of the Celtic myth of Avalon, the fruit whose fall inspired Isaac Newton to define the law of gravity.

The path of knowledge that brought together the potential of nature and the opportunities offered by history through the fruits, and their role in culture, on the markets, in gardens and landscapes, stretches back to the forests of Kazakhstan crossed by the ancient Silk Road, that network of routes, trade and exchanges based in China that brought together Europe and Asia. Together, wild and domesticated animals (bears and horses) and humans participated in a giant genetic laboratory that led to the diffusion of the species, to the first attempts at domestication, laying the foundations of a culture expressed in myths, symbols, cultivations, and landscape, and now an irreplaceable heritage of biodiversity for the future of humankind and of the places that it inhabits.

The 27th edition of the Carlo Scarpa Prize dedicates its awareness-raising and study campaign to these places and the fragile condition that they share with human activity and culture, in recognition of the importance of diffusing knowledge and safeguarding the landscapes that they represent, a precious testimony of cultural biodiversity.

The seal designed by Carlo Scarpa has been awarded to Kazakh scientist Natalya Ogar as a symbol of recognition of her commitment and dedication to these places, and as a sign of encouragement for her continuing efforts to promote the knowledge and protection of the wild apple forests; in fact, for many decades now she has been active in the field of international academic research, working in frequently difficult conditions, and seeking a dialogue with the public institutions responsible for safeguarding natural resources and with environmental associations.