

RESTORING THE **TANIGUCHI'S** FLOWING WATER IN AUSTIN, TEXAS



The second of two smaller gardens in this story is the Taniguchi Garden at Zilker Botanical Garden in Austin, Texas. Isamu Taniguchi created this garden on three acres of rugged caliche hillside in the late 1960s. There is a large network of streams and two small ponds spell out the name Austin when viewed from above. Curing several leaks was accomplished with outside professional help along with Parks Department and volunteer personnel.

Isamu Taniguchi in the lotus pond *Photo Courtesy Taniguchi Japanese Garden archives*

BY **ED PARKEN**

As one enters the Taniguchi Japanese Garden, built on a rocky hillside at Zilker Botanical Garden in Austin, Texas, knowing its story is crucial for understanding and appreciating why it is one of Austin's most treasured assets.

This three-acre tract of land was transformed into a peaceful, strolling garden by Isamu Taniguchi (1897-1992), a former California fruit farmer who was interned in World War II in Texas. He was seventy years old when he built the garden over eighteen months, with occasional help from two Park and Recreation Department (PARC) staffers. Taniguchi designed the garden in his mind, his soul, and his heart. It was his labor of love, given to the City of Austin as a gesture of gratitude for educating his two sons, Alan and Izumu, who both graduated from the University of Texas at Austin. Alan was Dean of the UT School of Architecture in 1969 when his father completed the building of the Taniguchi Japanese Garden in April of that year.

The garden features a series of ponds and two of them spell out the word "AUSTIN" when viewed from above – an ideogram reflecting that this garden was a gift to the city of Austin. The first is the AU pond and the second is the STIN pond.

By 2010, there were severe leaks in both the ponds and the streams that connect them. The leaks wasted water, caused erosion, and required an inordinate amount of maintenance from the PARD staff. A three-phase project was initiated to provide a solution to the leaks. Phase One – the coating of the first pond and stream – was completed in 2011.

Phase Two consisted of the Patio and Lotus Ponds. Because both ponds had previous coatings, it was decided that the ponds would be sandblasted to ensure a better surface for application of the liner.

Phase Three was coating the Rose Pond, the last pond in the Taniguchi Garden chain, which marks a transition from the Japanese garden to another section in this botanical garden.

This three-phase project was started in the fall of 2011. The patio pond was emptied, plants and decorative stones were removed, and the pond surfaces were sandblasted to remove previous coating material. Minor repairs were made to ensure a solid surface for the liner coating. In addition, the waterfall at the exit from the patio pond had to be rebuilt by PARD and the limestone walk over the stream bed at the waterfall had to be removed. The patio pond was then sprayed with DragonKote (TM) spray-on liner. The reconstructed waterfall and basin, and the stream bed under the walk were coated with liner until they joined the already coated stream bed. The walk was rebuilt to complete this portion of the repair.

Next, the Lotus Pond was emptied, plants and decorative stones removed, and pond surfaces were sandblasted to remove previous coating material. The sandblasting work was completed December 2011. This was the largest pond to be sprayed with liner and there were many areas that required attention by the PARD staff. Holes and depressions had to be filled. Sharp corners had to be eliminated. Existing cracks

had to be filled and smoothed out. The contractor that applied the liner made a number of suggestions and the PARD staff did a thorough job preparing the entire pond.



After carefully wrapping stones, pulling plants back, and masking edges by volunteers and park staff, the contractor finally had a dry day to apply the spray liner *Photo by Edward Parken for the Taniguchi Garden*

The Patio Pond was completed in January, 2012. The Lotus Pond work turned out to be a challenge. The size of the Lotus Pond (2,627 ft. sq.) required that the application of the primer and the polyurea coating be applied in two steps. First the pond surfaces had to be dry. This meant that there had to be a period of four or five days without rain. The primer was applied first and then, after it was dry, the polyurea coating. The application of the polyurea had to be within twenty-four hours of the primer application. There was a period of very rainy weather and although we were happy that Austin was getting rain, it was difficult to find four or five dry days. After a number of false starts, the Lotus Pond was coated.

The final pond was completed in June 2013. Unusual rain in late May cost time and caused concern. The coating will not adhere to a moist surface.

Volunteers were an important part of the process with more than 100 volunteers participating in the three projects. Volunteer time for Phase One totaled 300 hours. Volunteer tasks consisted of helping with the preparation of the ponds for the coating by masking the surfaces to be coated as well as the project manager tasks to coordinate the vendors and volunteers.

Volunteer hours were reduced in Phase Two compared to the first project for a number of reasons. Notably, this was the second time the prep work had been done so that part of the process went very quickly. The weather in the second phase caused many delays. In one case an area of the Lotus Pond was primed four times before it was coated. The PARD staff, vendors and volunteers did a good job of coping during this difficult and at times chaotic period.

The weather increased the project manager workload but discouraged the volunteers. The on-the-ground

volunteers and project management totaled 196 volunteer hours for Phase Two. The smaller scale of the final pond meant a lower number of necessary volunteer hours: 80 hours for Phase Three.

The first two phases of the project were complete in time for the 55th annual Zilker Garden Festival in March 2012. Upon inspection after the festival, one place was found that required a spot repair due to a hole in the stream bed. This was completed during the annual draining of the pond in January 2013.

The ponds are in their best shape ever, with both stream beds and the pond surfaces completely stabilized and coated. The flowing water that gives such character to the Taniguchi is back. The koi are happy in the lotus pond. The waterfall is flowing down to the STIN pond once again. These repairs will reap benefits far into the future, with dramatically reduced water losses, much less maintenance, and enhanced beauty of the ponds.

TANIGUCHI JAPANESE GARDEN www.taniguchigarden.org

Lotus pond still filling after repairs and spray liner applied
Photo by Bill Eger

