

Aerial Art

Kite flying has a deep history and is practiced by cultures all over the world.

by Gayle Goddard-Taylor

In the sky above a wide field outside a Japanese village, flocks of brightly colored birds soar and dart. Below them teams of 100 men watch the sky, all the while chanting, “Ah-choo! Wah-choo!”

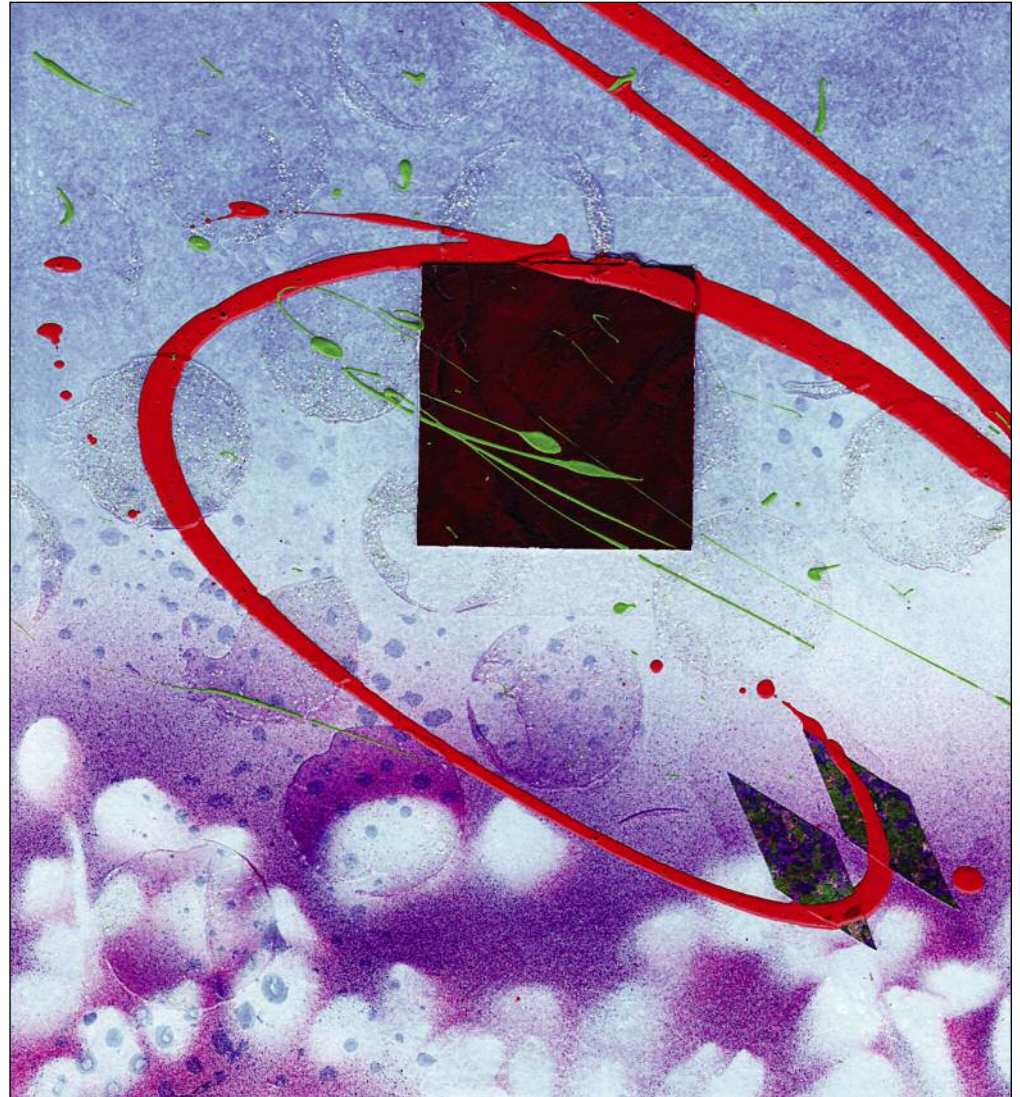
Across the Pacific, heading for San Francisco Bay, a fuel tanker saves on its estimated \$100,000-a-day fuel bill by employing an age-old source of power.

The brightly colored birds are kites, and they're not the avian kites so beloved by birdwatchers; they're the human-made variety. The Japanese teams of men are manipulating six- by ten-foot rectangular kites known as fighting kites. And the fuel tanker is harnessing the power of the wind with, yes, kites.

Kites, which may bring back memories of gusty days atop a naked hill and the thrill of seeing a 25-cent paper-and-stick flyer finally get some altitude, have come a very long way—and have found countless expressions since their first recorded debut in China. There are stories of kites dating from the time of Confucius (551-479 BC), but most kite historians agree that the first recorded account dates back to 200 BC when Chinese general Han Hsin flew a kite over the walls of an enemy palace to gauge the distance he'd need to dig a tunnel to provide entry for his soldiers.

There is another famous legend about a Japanese robber, Kakinoki Kinsuke, who flew in a kite over Nagoya Castle and stole the golden dolphins atop its towers, according to Rick Kinnaird, a writer who has traveled the globe in search of kites and kite festivals. Kinsuke landed safely but was later arrested. Add larceny to the list of uses to which kites have been put.

Most Chinese kites were made in two basic designs—the so-called butterfly kite, made with two curved bam-



Contemplation #7

boo sticks, and the box kite, a rectangular style with a grid of sticks. Indian fighter kites, as described in the novel *The Kite Runner*, came along a little later and consisted of a square of paper with diagonal supports fitted with two lines, the bottom one slightly longer than the top one to provide greater maneuverability.

Later in history, the lines were transformed into powerful weapons, designed to cut those of competitors' kites by the application of a paste of rice flour and finely ground glass. To fly such a kite required tough calluses on the thumb and index finger along with strong back muscles in order to fly the kite all day.

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Meditation Garden #94

Kite fighting in Japan came about as a way to give unemployed Samurai warriors something to do when there was no one left to fight. As the sport developed, each town developed its own style of kite. Generally, they are rectangular, with the largest reaching six to eight feet across and twelve feet in length. These kites, unlike their distant but deadly Indian cousins, fly on a line the width of a pinky finger that may be 100 years old and is interwoven with the neighborhood team's colors. While the kite is expendable, the line is irreplaceable.

The largest of Japan's kite-fighting events—in fact, the largest sporting festival in the world—is the Hamamatsu Festival, held annually to recognize babies born in the village that year. In the past, the festival honored only male children, but in recent years it has become gender neutral. “In the corner of each kite is a symbol for the child being honored,” says Kinnaird. “Before the kite is flown—and it takes fifty people to fly this kite—that child touches the line.”

“The other fifty people on this team link arms and march around the enormous field, somehow finding the wherewithal to bang on drums and blow trumpets. Imagine 55 teams with one hundred members each,

pulling synchronously on the line across their chests,” says Kinnaird, “and you might be able to fathom the utter chaos that is Hamamatsu.”

Japan's other famous kite festival is held at Shirone, where kites the size of an American living room are launched on opposite sides of the river and the lines are purposely tangled. This is not about kites; it's about tug of war and getting the other team to fall into the water.

Like music, kite flying seems to be a universal language spoken in virtually every corner of the globe. This near omnipresence leaves plenty of room for distinct cultural traditions. “In Thailand, they have male and female kites,” says kite maker and festival judge Jon Burkhardt. “In India on a certain day, much of the country flies kites. The common denominator among kite flyers is being young at heart. You may go to a foreign country where you don't speak the language, but you'll still be able to communicate through your kite.”

Burkhardt made his first kite when he was in his late 30s as a means of visual expression. Thirty years later, he has two companies

that produce his kites. Some he crafts in the Japanese style, others are modern American designs, and yet others have to just be called works of art. If all they do is sit there and shine, well, that's enough for him. There is a similar art for art's sake kite making tradition in China.

So what are the dynamics of kite flying, and, apart from the wind, what makes them fly? Burkhardt says that the most important principal is that a kite be perfectly balanced, left to right. Also critical is that part of the line that connects to the kite, called the bridle. “The bridle fixes the kite face in relation to the wind,” he says. “If it's too low, the kite won't climb. If it's too high, it barely floats and is unstable. Some kites are meant to be highly maneuverable, like the Indian fighter kites. Others, like a Cobra kite, which is generally a square kite with a very long banner tail, just find one spot in the sky and sit there.”

It's a common misconception that you need a very brisk wind for kite flying. Most kites do best in light breezy conditions. Because the kite presents a barrier to the wind, it causes a change in the air pressing on it, pushing it upward. Once aloft, the kite is affected both by the lift and drag caused by air pressure. If both lift and drag are equal, the kite remains stable.

Over the past century, the use of kites has expanded beyond the realm of recreation and competition into other arenas. England's Samuel Cody built a large double box kite with wings and a motor—which some say could have grabbed the distinction of “first airplane” from the Wright brothers if only Cody had used a stronger motor.

Kites have had a role to play in war as well. During World War II, Paul Garber, a Navy man and the first director of the Smithsonian Institution's National Air Museum (now the National Air and Space Museum), watched gunners shooting at clouds for practice. Recognizing that clouds provided no feedback on accuracy, Garber devised a two-line kite and a keel and decorated it with a German insignia.

“Apparently the admiral got a look at them and sent a message to Garber that he wanted 400 kites by the time his ship left the following Sunday,” says Kinnaird. “These were the first two-line kites and became known as Garber target kites.”

The idea of kites as a means of traction gave rise to the super-large kites designed by San Francisco engineer Dave Culp, whose KiteShip Corporation demonstrated the enormous potential of kite power. A 140-ton workboat was pulled from the Golden Gate Bridge to Alameda using giant kites. The corporation estimates that its kites can reduce cargo ship fuel consumption by as much as 25 percent.

The whole concept of traction kites has spawned myriad recreational activities that depend on the kite for speed and lift. In the late 1980s, New Zealander Peter Lynn introduced the kite buggy. Picture a small vehicle with wheels and a large eyebrow-shaped kite zooming along a vast empty lake bed at 30 to 40 miles per hour, nearly four feet off the ground. It was a no-brainer to attach a kite to a surfboard to launch another current favorite—kite surfing.

The greatest appeal of kite flying, however, is finding a breezy spot on the beach or a hill and watching your tethered companion climb. For Burkhardt, who made his first kite as a means of visual expression, there's nothing quite as enjoyable as watching your own work of art hanging in the overhead gallery. “Some of us are really

into the idea of painting the sky with our kites,” he says.

In our nation's capital last March, Burkhardt and everyone else who jammed the Washington Mall for the Smithsonian's 42rd Annual Kite Festival undoubtedly saw a lot of painters at work. It was Burkhardt's job to judge the kites and the competitions, and Kinnaird's role to be announcer.

Oddly enough, when Garber first founded the kite festival in 1967, he was arrested—flying a kite on the Mall was illegal. The following year, Garber was instrumental in having Congress lift the ban.

The Smithsonian festival, like most such events, attracts more than a few of the six-sided Rokkaku kites Burkhardt likes to design—hexagonal but with a longer vertical line. The next generation of maneuverable kites, the four-line kites seem to be almost alive and lend themselves to performance routines.

“The four-line kites, with two in each hand, have an up-and-down movement and a side-to-side movement,” says Burkhardt. “It's almost like having a 60-foot hand. You can land the kite on someone's hand, and the kite gets back up very quickly. It's the ultimate in control.”

But the scene stealers are generally the large square cobra kites with their long tails, or the box or cellular kites that lend themselves so well to graphic expression. Some perhaps look like a giant stained-glass window or ice crystals or space ships; others bear a comic face or a recognizable persona.

It would seem that there is no end to the ways we can enjoy kites, from taking pride in their design and construction, to using them as a canvas for visual works of art or a partner in an exquisite dance, to joining with a team of fellow kite lovers in a tug of war. There's even the joy of climbing a

tree to fetch an errant flyer.

The perfect day, the perfect kite, the perfect wind, and the perfect place don't always align, “But it's a real thrill seeing something you've created fly in the air,” says Burkhardt. “And sometimes it's just wonderful being outside and wrestling with Mother Nature.”

Gayle Goddard-Taylor is a field editor for Sanctuary magazine.

Blue Umbrella

by Janet E. Aalfs

Bumbershoot, cummerbund, bamboo
stalk like a spine.

Horsetail fern by the river. Piece
by piece destroyed.

Mushroom, umbrella pine, canopy
of rain. The sky a blue

umbrella keeps the universe
from drowning us.

Silken wind, oh please
do not forsake

this heartless ruin we make.
Cover us

with your sweeping wings
so we may wake again.

*Janet E. Aalfs was the
poet laureate of Northampton
from 2000 to 2005.*
