

Kites at the Smithsonian

As the premier aeronautics and astronautics repository in the world, the Smithsonian's National

Air and Space Museum on the National Mall in Washington, D.C., predictably has a wonderful kite collection.

Tom Crouch, chairman of the Department of Aeronautics, surveyed and reported on the holding after assuming his new job a few years ago.

Western kites of technical and historical significance at the Air and Space Museum include a Sir George Cayley reproduction, a refurbished Charles Duryea original from the 1870s, a reproduction of the Benjamin

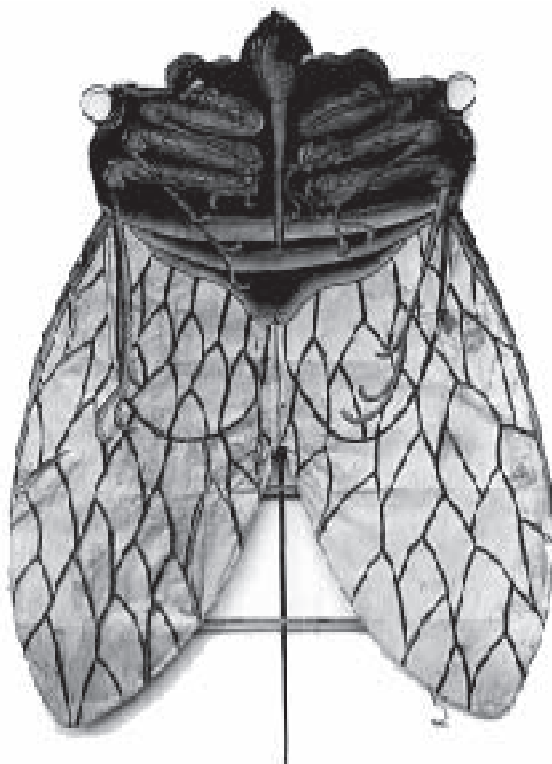
Franklin "electric" kite, a William Eddy tailless Malay-style reproduction, a reproduction of the Wright brothers' 1899 kite, and an original Perkins man-lifter.

Several kites, cells or parts of kites developed by Samuel Langley, inventor of the Langley Aerodrome, are included in the holding. Langley was the third secretary of the Smithsonian. Alexander Graham Bell, inventor of the telephone who went on to build the first flyable airplane in the British Commonwealth, is represented by a tetrahedral kite constructed from 16 original tetra cells by the late aeronautics curator Paul Garber.

The museum holds one unique object of importance to the history of flight technology, a Gallaudet kite. Now on display in the museum's early flight gallery, this kite represents the earliest serious attempt to demonstrate a simple version of the wing-warping



Elegant old Chinese kites at the Smithsonian Institution.



system later successfully employed by the Wright brothers. Gallaudet, who was working at Yale University in the 1890s, abandoned his work after conducting preliminary tests. Ironically, after the invention of the airplane, he entered the aviation industry and became an important manufacturer.

Special purpose kites owned by the museum include an early 20th century C.F. Marvin meteorological kite, a kite used in deep sea fishing, and examples of Garber World War II target kites manufactured in the tens of thousands and used to train gunners in the U.S. armed forces. One of these kites has a Japanese Zero aircraft painted on the skin, another a German FW-190 fighter. A sample harness and reel used to fly the kite are also in the holding.

Forty-two Cantonese show kites given to the Smithsonian by China following the 1876 Centennial Exhibition in Philadelphia were the first flying objects accepted into the collections of the Smithsonian. Twenty-two of them are held by the Air and Space Museum, the other 20 by the Smithsonian's National Museum of Natural History. Because of storage problems in the past, their condition, unfortunately, ranges from fair to poor. Restoration of the paper-covered kites is a project for the future. The two holdings will be considered as one for this work.

Where these old Chinese kites are devoid of their sails, their frames and bindings will be conserved for what technical and anthropological value they may contain. One of the kites in the Air and Space Museum collection, a traditional centipede, was restored by the late aeronautics curator Paul Garber.

The Air and Space Museum's collection contains a wide variety of other traditional Asian kites of more recent vintage, ranging from a Korean fighter kite with reel to an 11-foot-square Japanese Hamamatsu. Other items include Chinese, Vietnamese, Philippine and Japanese kites collected by Garber, as well as traditional Asian models constructed by him.

Crouch would like to see appropriate kites from Southeast Asia and the Pacific islands added to the

holding.

The collection houses several important examples of early Francis Rogallo technology, including his Jet, Flexikite Comet, and Flexikite Rocket. The Air and Space Museum's space history collection contains a Gemini boiler plate spacecraft fitted with a Rogallo wing recovery system, while the aero collection includes hang gliders based on the Rogallo wing system. An important soft kite in the collection is the original Domina Jalbert parafoil, given by the inventor in 1982. Pinpoint parachuting and other important aeronautical innovations have grown directly from the parafoil.

Recreational kites in the museum holding include one of the first four-line Revolution stunt kites by Joe Hadzicki and brothers. In addition, Paul Garber collected a handful of winning kites, or other recreational and sport kites that appealed to him, from the Smithsonian kite festival he ran for many years.

Tom Crouch of the Smithsonian sees a need for the institution to add more sport and recreational kites to its holding, paying attention to collecting soft-sculpted as well as controllable kites, with decisions being partly based on the possibility of an eventual exhibition that will require colorful and intriguing objects.

The Moon Kites

O solitude when come the stones
of which, in the Apocolypse, the city
of the great king is built.

Are you conscious...of the stages
of your growth? Can you fix the
time when you became a babe, a boy
a youth, an adult, an old man?
Every day we are changing, every
day we are dying...

—St. Jerome