

K I T E

THE DRACHEN FOUNDATION

J O U R N A L



Japanese Masterpiece Kites

One of the recurring, beloved mythological themes in Japanese kitemaking is Kintaro and the Carp. Kintaro is the strong, healthy golden boy, the upstream-swimming carp a symbol of strength and success. Kites with this dual representation are often flown for good luck on Children's Day in May. This beautifully painted old image was made by an unknown master in Echigo Murakami (the modern Murakami City) on the Japan Sea, northeast of Niigata in the 1920s. The kite is one of some 500 Japanese kites and kite sail paintings in the David Kahn collection, one of the best such troves in the world. A museum official in New Orleans, Kahn has been collecting since he was nine years old. Page 7.

The Journal Staff



Ben Ruhe

Scott Skinner, president of the Drachen Foundation, is a former pilot instructor at the U.S. Air Force Academy. He has been a kite enthusiast for three decades---designing, making, flying, collecting, and teaching about kites.

Ali Fujino is the director of Drachen. A museum specialist since age 19 when she began work at the Smithsonian Institution, she has long been fascinated with anything that could become airborne. Fujino is a member of the prestigious Explorers Club of New York City in recognition of her 25 years of cultural work in Third World countries.



Ben Ruhe



Malcolm Goodman

Editor of the Drachen Journal, well traveled **Ben Ruhe** regularly contributes articles to special interest publications on subjects as diverse as boomerangs, tribal art and flint-knapping.

Note to readers: Articles in this issue of the Drachen Foundation Journal not bylined were written by editor Ben Ruhe.

Born and raised in Japan, **Kiyomi Okawa** came to the U.S. as a student and has stayed on to become Drachen's graphic artist. Among other duties, Kiyomi lays out this Journal. She's been flying kites since elementary school.



Mikio Ioki

How to Find This Journal

The Drachen Foundation Journal can be read online or printed out, as desired. To read it, bring up www.drachen.org, and click on Journal icon. An Adobe Acrobat Reader is needed for viewing or printing out the publication. It is available as a free download at <http://www.adobe.com/products/acrobat/readstep.html>

The Drachen Foundation:

Kite Archives, Science and Culture

The Drachen Foundation is devoted to the increase and diffusion of knowledge about kites worldwide. A 501(c)(3) private nonprofit corporation, Drachen views kites from the standpoint of art, culture, science and history. It uses an integrated program of exhibitions, education, research, collections management, and publications to promote learning about kites. The archive it maintains is freely open to the public for research.

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Paul MacCready Sees Great Promise In Using Kites to Tap Power of Wind

Editor's note: Following are concepts involving kites by AeroVironment Inc., of Monrovia, California. The firm is headed by the inventor of the 90-pound Gossamer Condor, the first man-propelled airplane, now occupying a place of honor in the Smithsonian's National Air and Space Museum in Washington, D.C.

By Dr. Paul B. MacCready

There are kite challenges in our planning, specifically a) a device that can be induced to stay aloft indefinitely at 700 to 1,000 feet above ground, in all wind and weather conditions, to monitor video and meteorological and acoustic signals and telemeter the information elsewhere, b) the use of a kite to extract energy from the winds in the atmosphere, the kite moving back and forth crossways to the wind so as to extract extra energy until the wind slows to below half the ordinary stall speed of the kites (at ever slower wind the kite can be kept aloft by energy from the ground, but does not acquire energy from aloft), c) various kites to move nearly crosswind and provide thrust in almost all directions to land or water vehicles, and d) making small versions of such kites serve as a propeller for vehicles which can go downwind or upwind faster than the wind speed.

Techniques With Coupled Devices

If we consider a kite on a string, we realize the kite can be aloft and interact with a stronger relative wind than is available were it to be affixed onto the surface of a slow vehicle. The kite can be used to tow a ground or water vehicle. The kite can also be guided to pull at an angle nearly 80 degrees from the relative wind at the kite altitude, and can provide a good force to the ground vehicle that is pulled with say 80 degrees of the kite line direction. Energy for the ground vehicle comes from the pull component in the direction of motion of the vehicle. Alternatively, the kite can extract energy by a propeller mounted on it. This decreases its performance, but provides an independent source of energy (which presumably is brought to the ground via two insulated wires that comprise the line to the kite).



Dr. Paul B. MacCready

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An advantage of the kite is that it can be controlled to move fast: left and right, up and down. Its speed becomes much faster than the wind speed, and the power it derives can be far larger than with the motionless kite. To some extent it operates like the whirling blade of a wind turbine, its effectiveness relating to the swept area. Further, when the wind becomes somewhat too light to support the stationary kite, the moving to and fro can provide line tension and thus allow it to remain aloft.

Kites are used rarely for research purposes, but deserve more attention. Giant kites have been experimented with for carrying a significant energy generator aloft. In many locations the wind aloft is three to four times stronger than near the ground, so a wind turbine aloft could in such circumstances obtain 27 to 64 times the energy than it would at the surface. If the generating kite were programmed to dash to and fro, it could extract even more energy. There have been energy projects proposed for high stationary kites. The challenge comes from operating in air space that must be avoided by aircraft, and dealing with the natural variations of wind.

In summary, there is huge energy aloft, derivable from kite generation, but not yet activated.

Another technology makes use of a pair of kites, or sailplanes, separated by a long line but not connected to the ground. If the two vehicles are operating at different altitudes in air with different speeds and directions, they can extract energy----perhaps enough energy to keep the two vehicles aloft, and possibly enough additional to provide power for immediate or delayed fast propulsion.

Exploiting Atmospheric Turbulence

Paul MacCready's doctoral thesis at the California Institute of Technology in 1952 was on atmospheric turbulence. He founded AeroVironment, which now has several hundred employees, to develop instrumentation and efficient flight vehicles for the aerospace industry and government.

His company produced the first man-powered airplane, which won a \$100,000 prize for flying a measured mile. A \$214,000 prize was won for crossing the English Channel. A solar-powered 247-foot aircraft attained an altitude of 96,000 feet. AeroVironment developed a pterodactyl which flew with flapping wings. It pioneered in the development of fuel cell devices for powering airplanes and land and water vehicles.

Dr. MacCready's work, talks, and writings all fit the challenge of finding a balance between nature and future technology. He notes that nature has evolved some creatures of amazing efficiency, and that humans are just beginning to realize the social costs of wasted energy. He feels we can learn from natural creatures, and often improve on their techniques----for movement through air, on land, and on and under water. Atmospheric turbulence can help an airplane, or bird, or kite, fly. Kites can move objects downwind even faster than the wind; and streams, currents, waves, and tides can all be exploited for energy.

Brainstorming With the Wizard

Three Drachen Foundation board members had the unique opportunity to meet with aeronautical legend Paul MacCready at his Southern California AeroVironment offices late last year. The three were Scott Skinner, Monument, Colorado, president of the Foundation; Joe Hadzicki, San Diego, inventor of the Revolution kite; and Dave Lang, Seattle, an aerospace expert.

MacCready's unique career path has ranged from cloud-seeding, to testing for automobile emissions, to human-powered flight, and now, finally, to a leadership position in energy conservation, lightweight motors, and remotely powered vehicles.

The four discussed two kite-related projects Dr. MacCready had worked on----aerial monitoring and power generation.

In the early 1970s, MacCready said he experimented with a kite system he hoped would provide a 24-hour, 7-days-a-week environmental monitoring capability. His idea was to use balloons, tethered above kites, which would streamline and trail the kites when the wind was adequate for normal kite flight, but in no wind the balloons would fly above and suspend the system; it was his thought that numerous monitoring systems might not only give valuable on-site information but also be a visual reminder to the public of public environmental degradation. For various reasons, he discontinued the project.

MacCready said that while interested in power generation, he had no hands-on experience in the field. Lang then took the lead in explaining a power generation scheme being studied in Italy and New Zealand known as the KiWi Gen project. Lang talked of his own findings when he studied kite power generation ideas on behalf of the Foundation in 2004.

“In my judgment, this presentation by Lang was perhaps the most important development of the meeting, since it allowed Dave, Joe, and myself to really explore ideas that might bear fruit in the power generation field,” says Skinner.

“Inspired by MacCready's ability to think big and outside the box and his overriding environmental concerns, we three decided that, however outlandish, kite power generation deserved a major place in the Foundation's

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Dr. MacCready (second from left) meets with Drachen Foundation board members Dave Lang (left), Scott Skinner, and Joe Hadzicki.

priorities. Even if there is not a viable economic solution, the Foundation can be a facilitator of information for groups interested in the idea. Additionally, work that we do in the field can be translated to a number of interesting school projects in the scientific arena. From what might be viewed as a rather generic interview has come a great deal of excitement as the Drachen group continues to look at kite power as a potentially inexpensive power generation option.”

Says Lang: “I was taken by MacCready’s unpretentiousness. He is mild mannered, yet he became animated with us and thoroughly enjoyed talking about things dear to his heart.

“He has a generalist’s approach and a strict business sense. For instance, regarding kite power, he seemed to feel that the necessary condition was to have secured patents prior to embarking on a venture, rather than doing some development work to see if any of it made any sense. He seemed to have a bit of Scots streak, this from the man who runs a company doing business on the order of \$180 million a year, and growing rapidly.



Dave Lang diagrams a kite power generation project.

“The discussion, although a long one, never got around to current kite technology, but in all it was a delightful, stimulating visit. I even had a brainstorm about a kite power project I am involved in right in the middle of the meeting. Later, back at our hotel, the Drachen group had a great, useful technical discussion----it was undoubtedly the MacCready effect.”

The long meeting with MacCready was videotaped for the Drachen archive.

Paul MacCready Answers 3 Questions

Ask him a question, receive a profound answer.

Drachen Foundation: How do you define success?

Paul MacCready: Success means achieving a goal---economic, social, military, etc.---that establishes a reality onto which further success can be built.

DF: What is your advice to young people?

PM: Look for innovation, whether it turns out right or wrong, because it launches you further along the way toward new and realistic solutions. Innovation is best spawned by looking for solutions to all sorts of challenges early in your youth. It’s hard just to introduce the concept when in or after college. Experiment, try new approaches, look at the big picture, interact with those folks who stimulate your tasks.

DF: How do you want to be remembered?

PM: It makes no difference to me. The ideas and accomplishments may deserve remembrance, but not who did them.

A Superb Collection of 500

Museum Official's Japanese Kite Trove

David Kahn is was one of those natural born collectors, the type who takes to collecting early and never changes his ways. Kahn had his major insight as a nine year old when he discovered a gift shop selling Japanese folk toys, including kites. A New Yorker, the aesthetics of the Orient captivated him. Kahn bought not only a Japanese kite but also a mask and other items. He was on his way.

Child of an advertising executive who collected widely and set him an example, Kahn took two Ivy League degrees in Renaissance and Baroque painting and 19th century American architecture and after a training period with the National Park Service in New York assumed the executive directorship of the Brooklyn Historical Society, then for nine years served as executive director of the Connecticut Historical Society Museum in Hartford. In May of this year, Kahn moved to New Orleans to become director of the Louisiana State Museum System. The system embraces five historic public facilities in the Latin Quarter of New Orleans, barely damaged by Hurricane Katrina, a modern new facility in Baton Rouge, and several small sites elsewhere in the state. With annual budget of \$7 million and 100 employees, the system draws 325,000 visitors annually. Collections span the entire history of Louisiana and include fine holdings of Mardi Gras costumes.

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A beautiful Tomoe kite was Kahn's first addition to his Japanese kite collection as an adult. He bought it in Tokyo in 1987. The kite is believed to be work of the master Matsutaro Yanase, of Yokasuka in Shizuoka Prefecture.



Kahn visited one of the grand masters of Japanese kitemaking, Teizo Hashimoto (1904-93), in his Tokyo workshop. Hashimoto was renowned for his large, rectangular Edo kites, perfect for large scale dramatic paintings. Hashimoto could of course do a range of kites. This woodblock kite image was drawn, printed, and then hand-colored by him. The subject is Sambaso, an exuberant character in a Noh play.

Both photos by David Kahn

Kahn made his first trip to Japan in 1986 and was deeply impressed with what he saw. His profound commitment to Japanese kites and other objects began then. Using a self-styled “vacuum cleaner” approach, Kahn took to scouring Japanese shops and to visiting major craftsmen in their workshops. He recalls his first purchase as an adult---a *Tomoe* kite from Shizuoka, near Toyko. It can be described as having three-part design. At the top is the *Tomoe* symbol composed of three whirling commas, at the center are two ‘eye-tie’ textile designs, and at the bottom is a folding fan incorporating a circular sun and cloud pattern.

With Masaaki Modegi, the Tokyo restaurateur and kite collector as guide, Kahn visited and collected from such famous makers as Teizo Hashimoto, of Tokyo; Yoshizo Sakuraba, of Hirosaki, Aomori Prefecture; and Shouzi Kobayashi, of Sanjo, Niigata Prefecture. Hashimoto was famous as the last of the great *Edo* makers, Sakuraba makes cedar-framed *Tsuguru* kites, Kobayashi is renowned for his six-sided *Rokkaku* fighters.

Because prices were quite affordable, Kahn collected in depth and now after 20 trips to Japan has some 500 kites (*tako*) and kite paintings (*tako-e*), viz. decorated sails that do not have frames and bridles attached to them for flying. As a museum professional, everything is documented and carefully conserved in acid-free containers.

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“A wild popeyed dragon by a crazy guy in Kyushu” is the way Kahn describes this favored kite by Magojiro Takeuchi. The collector was able to buy a lot of 20 paintings by the artist in Tokyo in 1998, one of his great coups. As Kahn comments, “Magojiro painted in an incredibly personal, abstract, appealing way. When I first saw an illustration of one of his kites in a book, I thought ‘Yikes, that looks like a Picasso.’”



David Kahn

Another major collector of Japanese kites, Scott Skinner, president of the Drachen Foundation, feels Kahn has one of the best collections anywhere. “His collection has more good examples of Japanese kites than anyone else’s,” he says, “although not as many great examples as some.” Skinner estimates the Masaaki Modegi museum holding to total some 600 examples, his own to rival Kahn’s at 500. The late Dave Checkley, of Seattle, had a holding of 350, many old and wonderful, of which most have gone to the World Kite Museum, in Long Beach, Washington, and to a daughter. Writer Tal Streeter has an excellent, apparently smaller collection put together when he was researching his book *The Art of the Japanese Kite*, one of the finest volumes ever written about kites and kiting, and there are several toy museums in Japan with excellent kite holdings, including an “extraordinary” (Kahn’s word) collection at Kurashiki, near Okayama.



Kahn at work.

“I’ve been focusing on older stuff for some years now,” says Kahn. “It’s not easy to find. And prices have risen sharply. A lot of stuff is mass-produced now, and hand painting is rare. I do make wonderful finds though now and then. For example, I found five kites by Hashimoto in a New York City flea market. They had been consigned to a frame shop and never picked up and I was able to get them for next to nothing.”

Although his Japanese permits him “to navigate and not much more,” Kahn has made discoveries in Japan too. At a temple fair, he found and snapped up two six-foot Sanjo kites, one by Kobayashi and the other by Toranosuke Watanabe, both now deceased.

His favorites? “A couple of popeyed dragons by a crazy guy in Kyushu who died in the 1960s. They are wild abstractions. Also, an image of Kintaro, the golden boy, with a carp, symbol of strength and success. It is beautifully painted.”

In addition to kites, Kahn has amassed a comprehensive support library. “I think I have every book ever written on Japanese kites and kite paintings,” he says. “The range is from pamphlets to coffee table volumes.”

Asked to define success as a collector, Kahn says: “If you’re happy that makes it a success. I think the collecting instinct----the crazed behavior, the sharp elbows----goes back to our hunter-gatherer culture. It’s that basic. It’s nice to put together a comprehensive collection and realize it is being conserved for posterity. The whole really becomes greater than its constituent parts. I hope one day my collection will go to a museum. But that’s well in the future at this point.”



Showing discriminating taste early on, David Kahn bought this classic Sanjo kite by Watanabe when he was just nine years old. It was one of his first kite purchases



The Thunder God image, another Kahn favorite, by Magojiro Takeuchi was used as an illustration in Tawara Yusaku's important 1969 book on Japanese kites, Nihon no Tako. Yusaku's book spans the late 19th and early 20th centuries.

All photos by David Kahn



Our friend Kintaro, this time on a kite in the unique shape of a sake cup.

Understanding Japanese Kite Symbolism

As his collection of traditional Japanese kites grew, David Kahn became curious about the subjects depicted on them. He found there was lots of information about different types, where they are made, how crafted, but little on subject matter. So he set to work doing research.

His findings led him to write a monograph, useful but unpublished.

Kahn learned deciphering Japanese kites is like reading the religious imagery in Medieval and Renaissance art in which you recognize the saints by their attributes, viz. a monk surrounded by animals and holding a bird is St. Francis of Assisi. With Japanese kites, the subjects derive from history, folklore, popular legends, superstitions, and Kabuki and Noh plays, all part of Japan's rich cultural heritage. Many of the characters depicted on kites appear as well in the form of toys and dolls, or are featured in prints, traditional fabrics, tattoos, and menko, or card games. A study of these helps in identifying imagery on kites.

There are three broad categories of subject matter: samurai warriors, characters representing good luck, and Kabuki actors.

An example of the first is Kato Kiyomasa, who led a Japanese invasion of Korea in 1592. A doughnut-shaped crest on the top of his helmet identifies him. He is renowned for having slain a tiger single-handedly with just a spear, and this fight is sometimes represented as a complete scene on large kites. Often, just a hint of the tiger's tail is depicted to remind viewers of the exploit.

The boy-hero Kintaro is a well known good luck figure. Capable of overcoming ferocious forest creatures, he represents strength and good health. He is often depicted clinging to a carp, another vigorous fighter able to climb waterfalls on its way to upstream spawning. Kintaro sometimes appears riding the waves along with a carp. At times the fish is represented by only a fin, a few scales, and a couple of tiny waves. It is understood viewers will grasp the reference.

A theater character particularly associated with the auspicious associations of the New Year is Tongue-Poking Sambaso, who executes a wild dance during a Noh drama. A favorite kite features his head, complete with exotic striped hat, twirling eyes and a big red, flapping tongue.

There are countless additional types of Japanese kites. Some bear frightening images aimed at driving away demons and bad luck. Others were used to welcome fishermen back to port. Most traditional Japanese kites do indeed have subjects, representing specific characters and scenes with very concrete associations for the Japanese. These kites keep alive popular legends, myths, and heroes. Knowing about them adds to Western appreciation of a remarkable art form.



A dramatic kite featuring the religious figure Daruma.

A favorite kite features his head, complete with exotic striped hat, twirling eyes and a big red, flapping tongue.

Kite Fashions: Above, Below, Sideways

Editor's note: Author of perhaps the best single English language book on kites. The Art of the Japanese Kite, Tal Streeter responded to a questionnaire on kiteflying clothing posed by the daughter of a kiteflying friend, Alistair Hunt. His offbeat answers to his personal fashion needs may surprise some.

Laura Hunt: Your age?

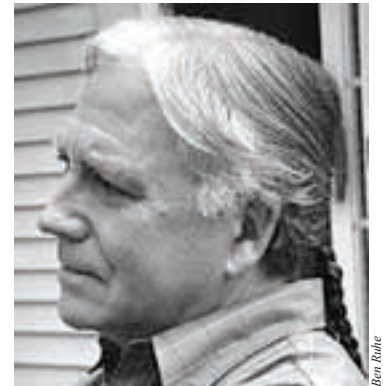
Tal Streeter: 70 going on 13.

Q: How many kiteflying garments do you own?

A: Only one specifically oriented to kite festivals. I wear it sporadically in a kind of personal, in-your-face mood: an ankle-length bright red nylon cowboy-style flared horseback slicker. I'd wear it on the field, but it is also great for passing quickly through that moment when your host is trying to identify you as "the kiteflier" arriving at the airport, ensuring immediate recognition. I put it on just before deplaning, not wanting to cause undue concern for the crew or stewardesses as a too-strange passenger.

Q: Where did you acquire this garment?

A: It was off the rack, on sale, in the women's large sizes department at Macy's, New York City.



Tal Streeter

Q: What type of shoe do you wear?

A: Tennis shoes in general are wonderfully constructed for active sports, kiteflying included, but, for me, drawing attention to my feet with wild patterns and colors? That's a disaster, a horrible blot on the weak, if not very nearly non-existent, American fashion scene. If I could find them, I'd wear low cut, white deck tennis shoes on the flying field. Due to foot problems, I actually wear brown or black leather Teva-style sandals year around, stylish and designed for extreme physical activities. (When wearing a tux, I wear them with black socks----generally unnoticed.) If we're in for rain, I wear New Balance DDD-width tennis shoes (carrying several pairs of socks), but generally I stick to sandals.

Q: What about jackets, trousers, tops?

A: On the field, I tend to appear against character: Americans customarily dress in tennis shoes and winter ski garb, whatever the season or occasion, without any taste whatsoever, both at home and abroad, instantly recognizable as Americans----doubly true for American kitefliers. I tend to dress down, but following what passes for an underplayed Southwest U.S. style: Levi jeans and shirt, sometimes with a Warhol-inspired tux jacket, or a nice summer-weight, natural-drape tan linen jacket; generally with a white, sometimes black, mandarin-collar Perry Ellis or Geoffrey Beane broadcloth or linen long-sleeved shirt. It would be nice to wear a brown felt dress hat, but winds on the festival fields make this impractical. A baseball cap seems appropriate, but solid black or brown with the bill folded tightly. Sometimes I'll revert to an in-your-face, boldly printed Hawaiian short-sleeved shirt off the airplane and on the flying field. Not of course in Hawaii.

Q: What do you look for in a garment? Durability, trendiness, practicability, colorfulness, comfort?

A: While traveling, as well as for generally day to day wear, I look for comfort. Garments should be washable. Trendy brandnames? Heaven forbid. I won't wear any clothing with a designer's label prominently displayed. Free advertising that I pay for? You're kidding!

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Q: What about accessories.

A: I raise a red pole bannner near my kite gear spread out on a blue ground cloth. If the pole doesn't fit in my flight luggage, I leave it at home.

Q: What clothing features interest you?

A: I have a probably unhealthy psychological fascination with sunglasses with German or French frames whose prescription lens are a shade of orange or very dark black. Glasses are very appropriate for a kite flier who spends much of his time with head turned to the sky (orange lenses in particular make the sky and clouds more beautiful). Long hair and dark glasses always turn heads in the supermarket---I enjoy screwing around with people's fascination with rock and movie stars, coming up with a stub of a pencil and a piece of paper looking for an autograph: "Sorry, I'm just a kiteflier."

Q: Out on the flying field, do you wear layers of clothing?

A: Layers seems the best bet for traveling reasonably lightly. Travel packing is a serious concern. In India, for example, the kite season can be both extremely hot and uncomfortably cold. In England in the flying season, on the other hand, there is always the need to keep a raincoat at hand, or when taking the field to spot a handy nearby tent to run into for shelter and rain-inspired shooting the bull with the always interesting kitefliers one finds on the flying field---whatsoever their fashion consciousness. Is talking about kites as much fun as flying them? You bet!

Q: What about emphasis on the flying field?

A: Maybe gear and flags should be more neutral in colors, not funereal, but played down a bit---thereby drawing attention to the stars of kite festivals worldwide---the kites themselves.

Q: What are your thoughts on uniforms?

A: I'm not inclined to the need for uniforms of any kind, but the simple, understated white short-sleeved tee shirt and jeans were business and party dress for the designer Versace---someone with the entire range of clothes and fashion accessories at his fingertips. That ensemble is my idea of a decent uniform for the well-dressed American festival flier. I love circus clowns, particularly the tramp clowns wearing beat-up bowler hats as opposed to the traditionally---scary---crazy quilt costumed whiteface clowns. But kiteflier dress modeled on these latter clown costumes, Dr. Seuss hats, etc., is for me a great distraction from the kites.

Laura Hunter: Thanks!

Tal Streeter: I hope these remarks have given you, as an emerging designer, some pause for thought. My comments on clothing may offend some festival kite fliers, but what I've written here is not a little tongue-in-cheek, and not meant to offend.

What They Had to Say

"Imagination is the highest kite one can fly." Actress Lauren Bacall

"Kite watching is good for exercising the cervical vertebra, improving eyesight, and relieving eye strain." Liu Chungen, Chinese Kites

"Those man-lifting experiments with kites Nick Morse and I did were scary, yes. We got up to 300 feet, high enough to die. The first 50 feet were the worse because if you fell you might live!" Martin Lester, England

"Kiteflying is a way to quiet anxieties, to eternalize the present moment. When I lived in Japan, I sometimes tied a kite to a tree where it would fly several days. The pleasure of stopping time with a kite has been expressed by the Japanese poet Buson: A kite---/in the same place/in yesterday's sky!" Tal Streeter, U.S.A.

Memory of Solo Flying

Editor's note: Following is a reminiscence by a veteran member of the North East Kitefliers of England.

By George Webster

It was a fine summer's afternoon next to the North Circular Road in Ealing when a rather----no very----casually dressed man weaved his way toward me with a friendly dog on a piece of rope. He was clearly one of the winos who sat on benches in that area or over near a tube station. There was an off-license, which always had passed-sell-by-date lager, which was always Tennants.

He. After standing looking at the kite, "That's a kite isn't it?"

Me. "Yes."

He. "How did you get it so high?"

Me. "It's got a long line."

He. "Would you say kites were your hobby?"

Me. "Yes."

He. After a fair pause, "Drinking is my hobby."

Me. "Well the advantage of my hobby is that I do it out of doors."

He. "Oh, I never drink indoors, it's far too expensive." Pause. "I can't remember where I was going."

Me. "Your dog knows."

Canine leading, they head off.

Strategies for Finding Kites in Laos

Aided by a Drachen Foundation research grant, Sarah St. Vincent spent nine months doing extensive research on kites in Cambodia last year, then extended her stay to do preliminary surveys of Vietnam and Laos. Using her intelligence, energy, a lot of curiosity, and some luck, she did excellent work in all three poverty-stricken countries. Her report to Drachen on Laos shows just how ingenious she was in hunting indigenous kites.

Strategies that didn't work: Asking around at government agencies. Scanning temple art work for depictions of kites. Reading children's stories translated into English for mentions of kites. Asking a large travel agency in Luang Prabang, now something of a international tourist destination, to arrange a kite-related excursion.

Strategies that did work: Asking around in upscale handicraft stores in the capital, Vientiane. "Many people were semi-fluent in English and knew where to find odd items." Visiting small Lao-run travel agencies in Luang Prabang. "These people tended to speak English, were extremely helpful, and told me about traditional papermaking villages on the outskirts of the city. That's where I found kites." Finally, visiting the papermaking shops where she was able to discover the kitemakers, commission kites, and receive insights into the sport.



Sarah St. Vincent

Wandering into a paper shop in Ban Nong Xai, outside of Luang Prabang, St. Vincent met a Mr. Chantha who responded to a question about kites by saying he had never made any for sale but had constructed them for young relatives and would craft some for her. He turned out four, in different colors, weights, and sizes, each of a different type, and rejected St. Vincent's offer of a \$17 payment, saying it was too much. He accepted \$12. As a gift, Mr. Chantha crafted a cardboard box to transport the kites.

Lightweight wax paper kites in orange and blue colors were crafted for her by a 23-year-old named Sengphet, nicknamed Pik, whom St. Vincent met through his father, a travel agent. Although he hadn't made kites since he was a boy, Pik turned out two beautiful examples, finishing them off for St. Vincent in his backyard just outside Luang Prabang while she watched. She paid him \$10 for both.

Hunting for kites, St. Vincent ended up with a pen-and-ink drawing by accident. Seeing a young hill tribe woman selling drawings and paintings on the sidewalk, St. Vincent attempted to commission a kite with a decorative drawing on the sail. The woman misunderstood and on a next visit by St. Vincent produced a drawing of a kite being flown. It was unclear where the drawing came from, but St. Vincent happily accepted it, and paid \$3. St. Vincent says in negotiating she had drawn a standard diamond-shaped kite but that the drawing she obtained shows a traditional Lao model. She took this as possible evidence that minority hill tribesmen fly kites as well as the dominant lowland ethnic Lao.

In her investigation over two weeks, St. Vincent learned that kites are flown during the December through January windy season. A hill in the center of Luang Prabang is known as *Phu Vao*, or Kite Hill. Flying is considered a male sport only. There are several traditional Lao shapes apparently unknown in bordering countries China, Vietnam, Thailand, and Cambodia. Materials used to make kites are handmade mulberry paper, bamboo, cotton thread, glue. Bamboo trimming knives are available for sale in markets.

St. Vincent realizes she discovered just the tip of the kite iceberg in Laos. As a graduate student at Harvard currently researching domestic life in Southeast Asia, St. Vincent hopes to revisit Laos as well as Cambodia and Vietnam and continue her kite studies there.

A shopkeeper in a suburb of Luang Prabang made this kite for Sarah St. Vincent. He constructed three others as well. She offered him \$17 for all of them but he said it was too much and asked \$12 instead, which is what she paid.



Renner Nielsen

Kites Save Fuel, Curb Emissions

Freighters Try Out Wind Propulsion

Sky Sails, a German firm based in Hamburg, has begun outfitting cargo ships with massive kites designed to tug vessels and reduce their fuel consumption. The firm estimates these kites will reduce consumption by about a third. This is a huge saving, given that fuel accounts for about 60 percent of shipping costs.

The idea of reintroducing standard sailboat sails was tried earlier. Testing this at the end of the last century, Japanese and Danish companies found that the required mast posed insurmountable problems because of the cost of strengthening hull and deck against extra stress, drag, instability of the boat in high winds, and the enormous deck space required by pivoting sails----valuable space which would otherwise be used to store containers.

If the sails are actually kites, however, the equation changes radically. Attached to a structurally solid bow, the flying kites solve many of the problems posed by spinnaker sails. Flying at 100 to 300 meters above the sea, where winds are less turbulent and on average 50 percent stronger than the winds that sailboat sails capture, it is projected they will recoup the cost of installation ranging up to \$4 million, depending on the vessel's size, within a half dozen years. This is a fraction of the cost of using standard carbon fiber sails.

Kites up to 5,000 square meters in size can be controlled by a computer which adjusts height and angle of the kite. When the wind blows too strongly, one end of the rectangular kite is released so that the kite flaps like a flag. A powerful winch retrieves the kite when necessary.

Kites for traction have a brighter future these days because European regulators are pushing for stiffer emission controls. Moving one ton of goods one kilometer by ship is said to release 225 times as much sulphur into the air as trucking the goods the same distance. Already the International Maritime Union has adopted new rules requiring ships to switch to low sulphur fuel that costs 50 percent more than traditional, and highly polluting, diesel.



Rendering by SkySails

Kite traction power used by an ocean-going ship

Single Line High Performance Mode Needed

Solving the Kitesailing Stability Problem?

Editor's note: Following is an essay by a New Zealand inventor who is known for possessing one of the most original and penetrating minds in the kite world.

By Peter Lynn

I've recently come to a new direction from which to think of the future of kitesailing. By kitesailing, I don't mean windsurfing: I'm referring to the use of kites instead of conventional sails for boats----including large boats.

I came late to kitesailing, in 1987. Dave Culp had already been at it for years and Ian Day had set a class speed record with a stack of Flexifoils and a modified Tornado catamaran back in 1978. Of course, kites have been used for pulling boats around for hundreds of years at least in Oceania. George Pocock wrote the first treatise on sailing upwind using kites in the 1820s, and then he did it. In October of 1987, John Waters, from Lincoln City (funny that you'd think it was in Texas, because anywhere else they'd call it a town, but no, it's in Oregon) suggested kitesailing to me as a goal worth pursuing. And I have been, from then on.

But kitesailing still hasn't made it to the big board yet, it's still barely on the fringes even within the kite fraternity.



Peter Lynn

Sure, Peter Lynn Kites Ltd. now has a good start at the small end with its Kite Cat. And Kite Ship (Dave Culp and Dean Jordan) have a solid and growing market for their Outleader spinnaker replacement kites on ocean going yachts. And Don Montague (Naish Sails) successfully rigs big LEI style kites to outrigger canoes and larger catamarans. And Sky Sails from Hamburg has just announced its receipt of an eight-million Euro grant to further plans for using kites in commercial shipping. And there may be other exciting projects bubbling away. And everyone working in the field is experiencing an exponential growth in the number of enquiries from hopeful but naïve yacht owners wanting to convert to kites. But in 1987 I thought kitesailing would be an established and substantial niche within the wider world of yachting by the mid-1990s, at least. Ten years past this, and it's not making much of a showing yet. I'm too embarrassed to reprint here some things I predicted back then, specially the time scale bits.

I'm not losing faith at all, though. I can feel lift off getting closer and closer.

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But what if it's another false start? What if the culmination of all the current hypes and hopes falls over by not being economically viable for commercial uses or not fast and exciting enough for recreational sailing, or just not reliable enough for both---wind being notorious in this respect, and kites being much more susceptible to rubbish wind than sails are? At least sails don't fall off their masts into the water when there's a momentary lull! And what if failure this time leaves enough bad memories with investors, potential customers, and even, perish the thought, diehards, to set the field back for another generation.

And shsssh, keep this quiet please, but I think it is likely or at least possible, that we will fail this time: *because flying kites is too difficult.*

We're all coming at this from the wrong direction. We're highly skilled fliers and we believe in kites. Other people will buy our dreams for a while, but then they won't, especially commercial users won't, and recreational sailors won't either, once the novelty has worn off---unless kites become really easy and reliable to use or confer some spectacular performance advantage. But there may be an answer.

Put simply, it's that if the default mode for traction kites was auto stability, that is, they behaved like good single line kites unless the flier is inputting control movements, and further if they could also be persuaded to switch their minimum pull when called on to look after themselves, then kites will take over the world at last. This is not a new idea, of course, but I may have some glimmerings of success in actually finding a way to do it.

Excluding lighter than air kites as probably impractical, I can think of three ways that traction kites can be made with an auto stable default mode.

The first is to design traction kites so they are docile and inherently stable, like single line kites. That is, they depower and seek their apex, except when under personal control. The second is to develop automatic pilots that cause them to do the same. And the third is to use a small auto stable "top" kite, with either inherent stability or an auto pilot, that then controls the position of the larger "power" kite that is below it. The third is a given if either autopilots or inherent single line type stability prove feasible. This stacked kite approach will not only work, but for large boats will be the standard solution, I'm sure.

I'm almost terminally skeptical about the feasibility of autopilots, having made more than a few attempts at developing them over many years, usually for the purpose of extending our range of single line kites to forms that lack inherent stability. Most people working in traction kite and kitesailing development are more optimistic about autopilots than I am, however.

But I am rather hopeful of traction kites that default as high performance single line kites. I have one sort of working already.

Old Man's Kite

*A feather upon the wind
Knocking on heaven's door,
Fluttering, weightless as a leaf,
Crimson, gold-hued,
A stain on brilliant blue.
She roamed far and wide,
Curious as a child,
Seemed at times to want to reach the sun.*

*But all the while held firmly back
By an endless piece of twine.
And as the sun fell, so did she,
Gliding, gliding, gliding,
Coming to rest on the cool grass,
To be picked up by the maker,
Back as on every dusk to collect her
With loving eyes, that saw far more than
The bamboo and silk.*

Gisela Pineiro

Accepted by Drachen Foundation

Important Collections Find New Home

Four important kite collections have been given to the Drachen Foundation in the last few years. The donors made the gifts so their prize troves would be permanently nurtured and made freely available to the public. Acceptance of the collections by the Foundation involves conservation, documentation, and dissemination. The Foundation's goal is the increase and diffusion of knowledge about kites worldwide.

As Director Ali Fujino notes, "Drachen policy is not to hold large numbers of kites but rather to stabilize collections and maintain them. Photographing a holding and posting the results online is one way of making a collection available globally, free to anyone with a computer. Another more limited way to show the works is in a touring exhibition. A third is holding the collection in storage and making it available for research by appointment."

Altogether, this is a serious commitment. "Kites are delicate and perishable and require careful---and costly---handling over a long period of time," says Fujino. "Because of their fragility, only a few really old kites remain anywhere in the world---and no collections at all. Bolstered by acquisition of a secure warehouse to complement its offices, Drachen is expecting to change this."

The gifts are snapshots in time. They shed interesting light on the kite scene of the last 30 or so years in the U.S. and elsewhere around the world.

Betty Street and Bill Lockhart donated a holding of 200 examples. Organizers of the famous annual kite retreat in the wilds of Junction, Texas, Street and Lockhart, of Lubbock, Texas, collected with taste and discrimination during their world travels. Both of them art professors at Texas Tech, they could afford choice examples. Their discriminating trove mirrors their respect for kitemakers and kite materials. Included here are superb examples from Indonesia and Malaysia, which Betty Street visited because of her professional interest in Southeast Asian textiles. Their combined collection spans the early 1980s to the present.

The late Ed Wright and wife Bonnie, of Clayton, California, made a snapshot of late 1970s and early 1980s kites. They put together top examples of the work of Reza Ragheb, George Peters, Martin Lester and a number of top Germans. When the Wrights turned to crafting their own elegant parafoils, their acquisitions went into the garage and sat there, not much used. Thus the kites are in almost pristine condition. The total holding is some 75 kites.

Harm van Veen, of the Hague, Holland, gave not only his substantial holding of miniature kites, many of them made by himself, but four file cabinets of records. The documentation includes extensive files from an organization titled the International Friends of Small Kites, of which van



Betty Street



Bill Lockhart



Ed Wright



Bonnie Wright



Harm van Veen



Stormy Weathers

Continued on Page 20



Ed and Bonnie Wright

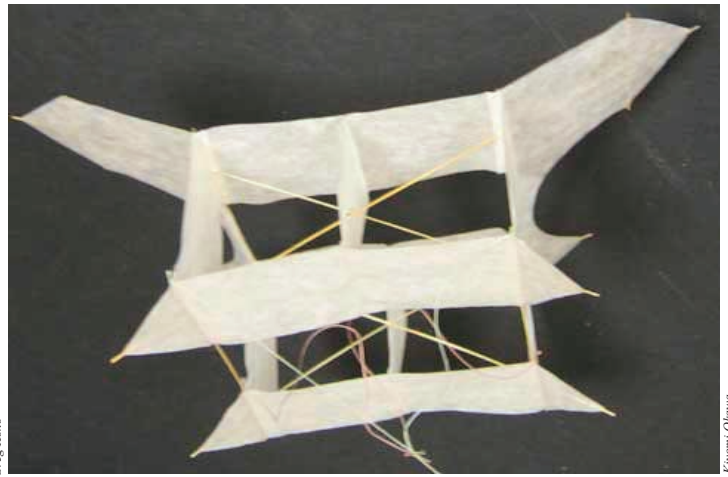
Gift kites: (clockwise from top left), parafoil from Ed and Bonnie Wright, Hashimoto Bee from Betty Street and Bill Lockhart, Cody miniature from Harm van Veen, and Star Victory from Warren (Stormy) Weathers.



Renee Nielsen



Greg Kono



Kiyomi Okawa

Veen remains a key member. A complete file of the association's newsletter is included in the donation of upwards of 80 kites. The lovely miniatures themselves arrived in Seattle both well documented and well conserved in individual boxes. Van Veen, now 82, is considered the grand old man of Dutch kiting.

The late Warren (Stormy) Weathers, of Portland, Oregon, focused on designing and crafting his own kites, which are mostly of paper and plastic, with not much ripstop used. His kites are notably good fliers and his designs a great source for other kitemakers who above all seek high performance. The Weathers collection, given by his family, totals some 100 kites. As an unusual step in disseminating information about the Weathers kites, Drachen had copies made of some of his best designs and presented sets to three kite museums---the World Kite Museum, in Long Beach, Washington; a large kite museum in Tokyo run by Masaaki Modegi; and a new British facility in Sunderland, England, opened by Malcolm Goodman.

These four collections joined two older, historic ones at Drachen---a very large holding of Samuel Cody material purchased at auction at Sotheby's, London, and a Dom Jalbert miscellany. Cody designed and flew the first airplane in England after the turn of the last century and Jalbert, of Boca Raton, Florida, designed the Parafoil, which led directly to the steerable parachute and other important applications.

As well as welcoming major collections, Fujino emphasizes that smaller donations, both of kites and kite memorabilia, are also very much welcomed by the Foundation. As an example, three boxes of correspondence spanning 30 years were given by veteran Pacific Northwest U.S. kiter Margaret Greger. "The letters beautifully document the growth of kiting and its fans in America during a key period of growth for the sport," says Fujino.

She adds: "For that matter, a valued gift might be as small as a single unique book or a packet of documentary letters."

‘The Lipstick Is the Kiss’

Anna Rubin’s Original, Emotional Kites

“The idea of flying has interested me since I was small,” says Anna Rubin. “I remember dreaming it. I made myself a set of wings. Remembering this when I started teaching many years later, I wondered how I could explain the fascination of flying to kids. Kites, I decided.”

Anna came to kites in a serious way in her early 20s while a student at the Vienna Academy of Fine Arts. Her very first kite typically had an original and personal touch: The Malay she made had a tail of feathers. She soon found her way to the Fly High kite store in downtown Vienna and she was advised to attend a kite festival to have her questions answered.

Attending the popular Cervia, Italy, fly near her home village of Goltschach, near Klagenfurt, in southern Austria, Anna had the good luck to team up with Robert Trepanier, of Canada, an international kiting figure of great charm and knowledge. “Bobby Three Baskets,” as he is affectionately known, taught her how to split bamboo, tie knots, attach paper sails to frame, bow the kite, and make an adjustable bridle. On her first day under his tutelage she made a small, delicate, highly original kite she still owns. “I was so happy when it flew well,” she recalls.

The next day she made a very different sort of kite and the following day a third, again innovative. “Anna, now you have the virus,” said her tutor. “It was true,” Anna recalls. “I came home from Cervia hooked.” Anna’s kites were so good a photograph of the second one in that Cervia series was used in Kite Passion magazine---high recognition for a beginner.

At a subsequent Dieppe, France, festival she, being uninvited, slept in a car. A contest on the theme “Metamorphosis” was held. She entered. Handed branches of bamboo, she made a kite from them and submitted it. The kite won and she received the top award---a trip to Japan.

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Anna Rubin

Ben Ruhe



Both photos by Ben Ruhe

From her driveway, Anna can see this lovely little village church. Looking the opposite direction she views fields and mountains. To the right beyond the tree line is a deep gorge with river.



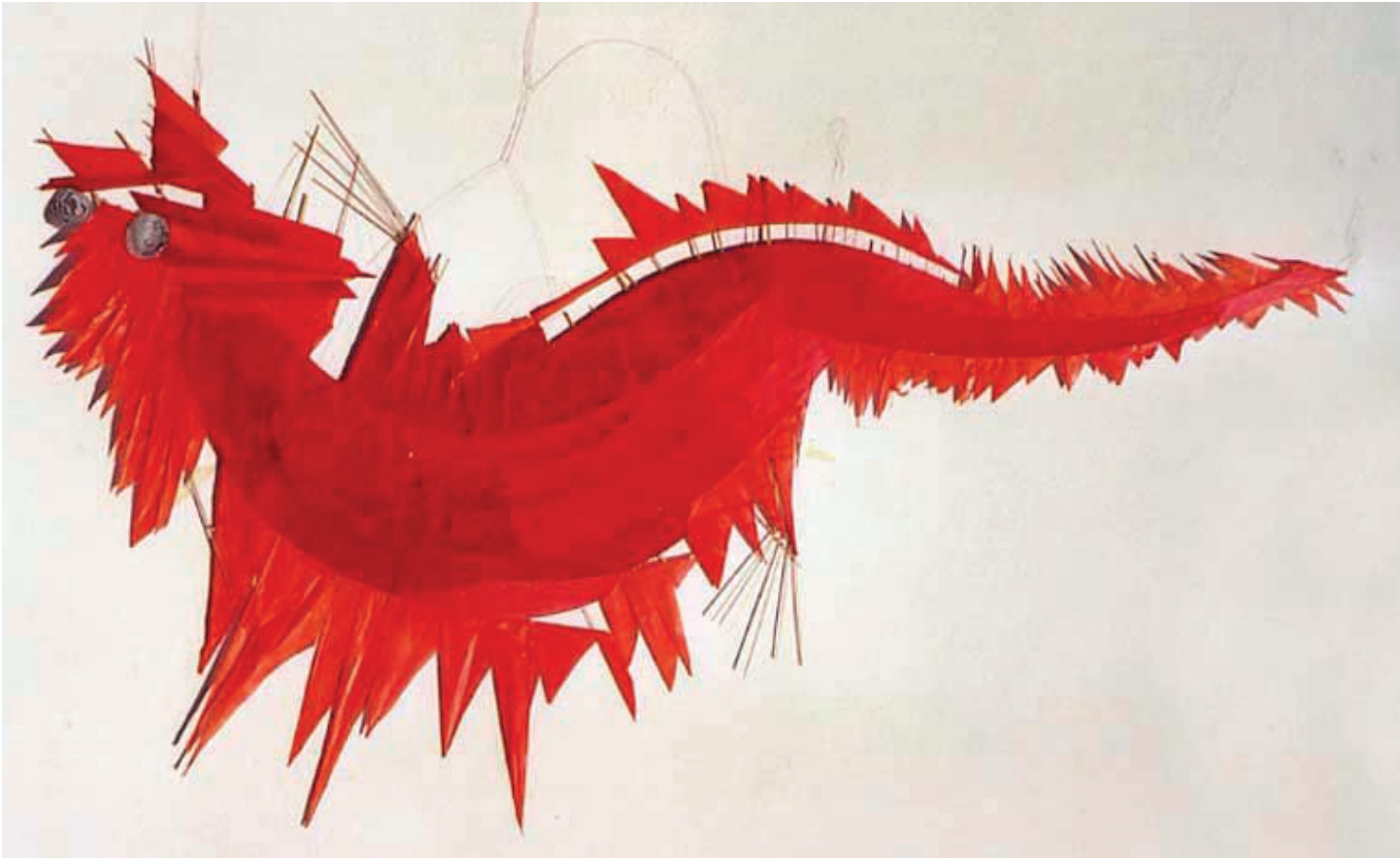
'Your Fence,' a Rubin kite of unrequited affection, but excellent flying ability.

Starting with symmetric kites, Anna evolved into making asymmetrics. "I make a kite to poetry or music or feeling, maybe a landscape. I express my emotion. I don't think of the kite as art or in theoretical terms. It is intuitive." To illustrate, she shows her kite "Your Fence." "It's a story about friendship," she says. "This man made a fence around himself, so I couldn't get close to him. I was always wearing a red hat, so that spot of red I attached inside the circle of the kite is my red hat. That's me. We were very close, very open hearted. He was never a boyfriend of mine, though. I got over the fence after two years, but not into his center."

"In my kite language, a circle is important to me. The circle is a symbol of a human being. The sticks protruding from the kite are a symbol of protection."

Although delicate in construction and looks, Anna's kites are quite strong. "As they fly, the wind shapes the soft kite," she says. "By extension, the kite is a human being represented. The kite moves continuously, representing the human body, which is always in movement. When I fly, the kite touches the sky and the wind. Are my kites feminine? Yes, I can't imagine a man making them."

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Honoring a nearby city whose symbol is the dragon, Anna created this elaborate red monster. Below left, she tied off a piece of bamboo and split it from the top and bottom. Spreading the strands, she bowed and bridled them to produce this attractive, unique kite. Right, another original is doubled by its shadow.



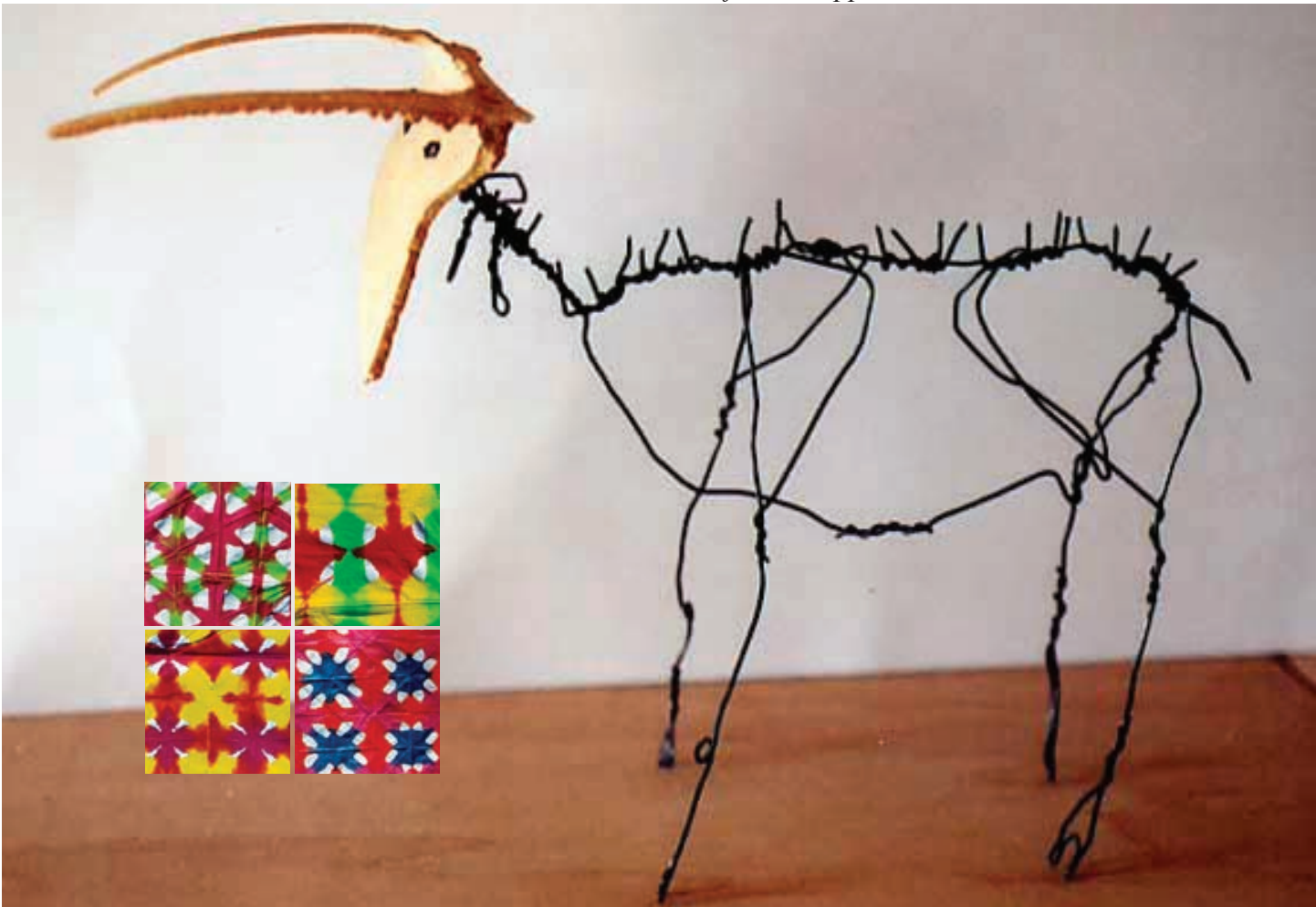
All photos by Ben Rubin



An olivewood sculpture by her father.

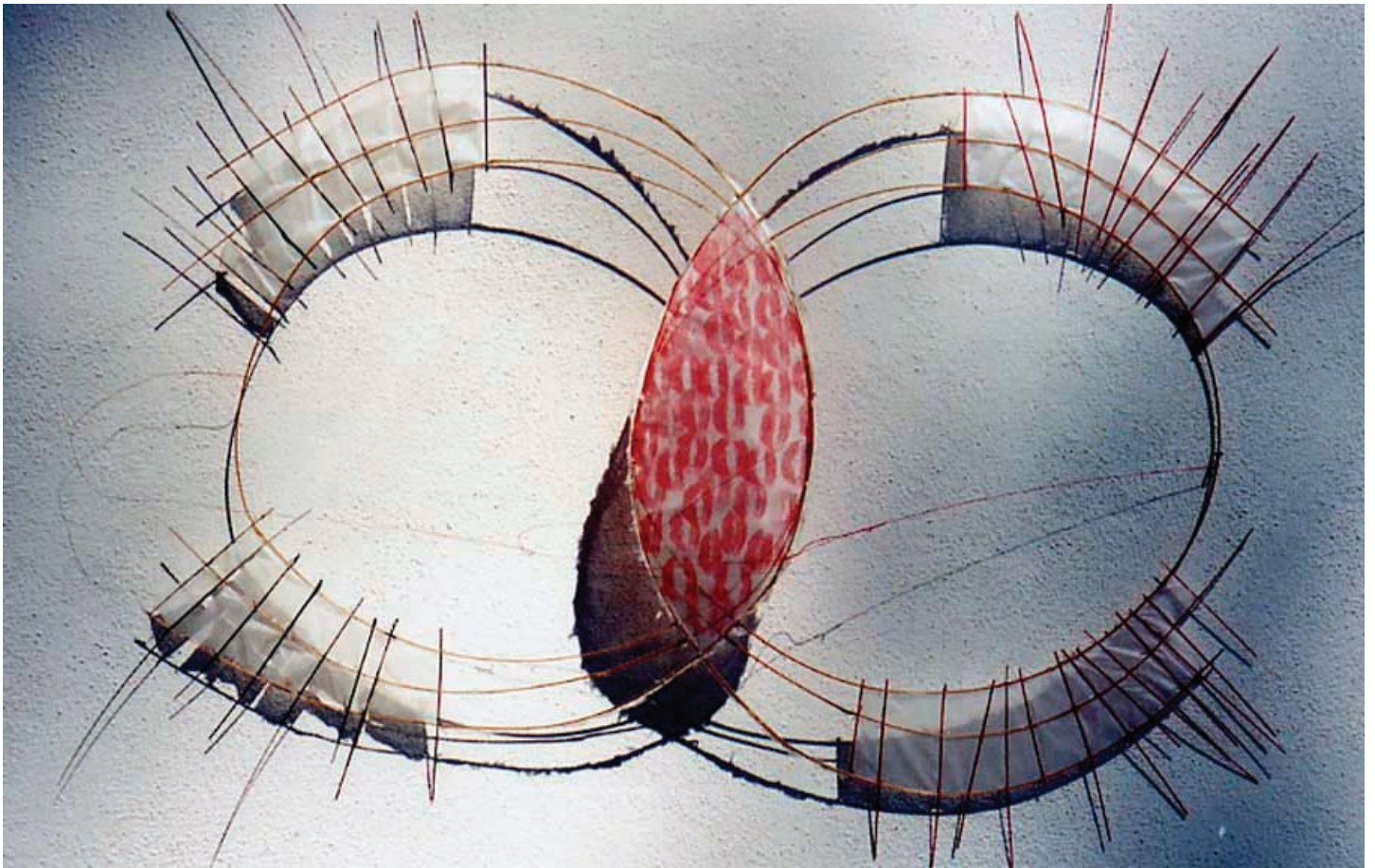


Cellphone baggies of felt, handmade by Anna. Sales of these supplement her income.

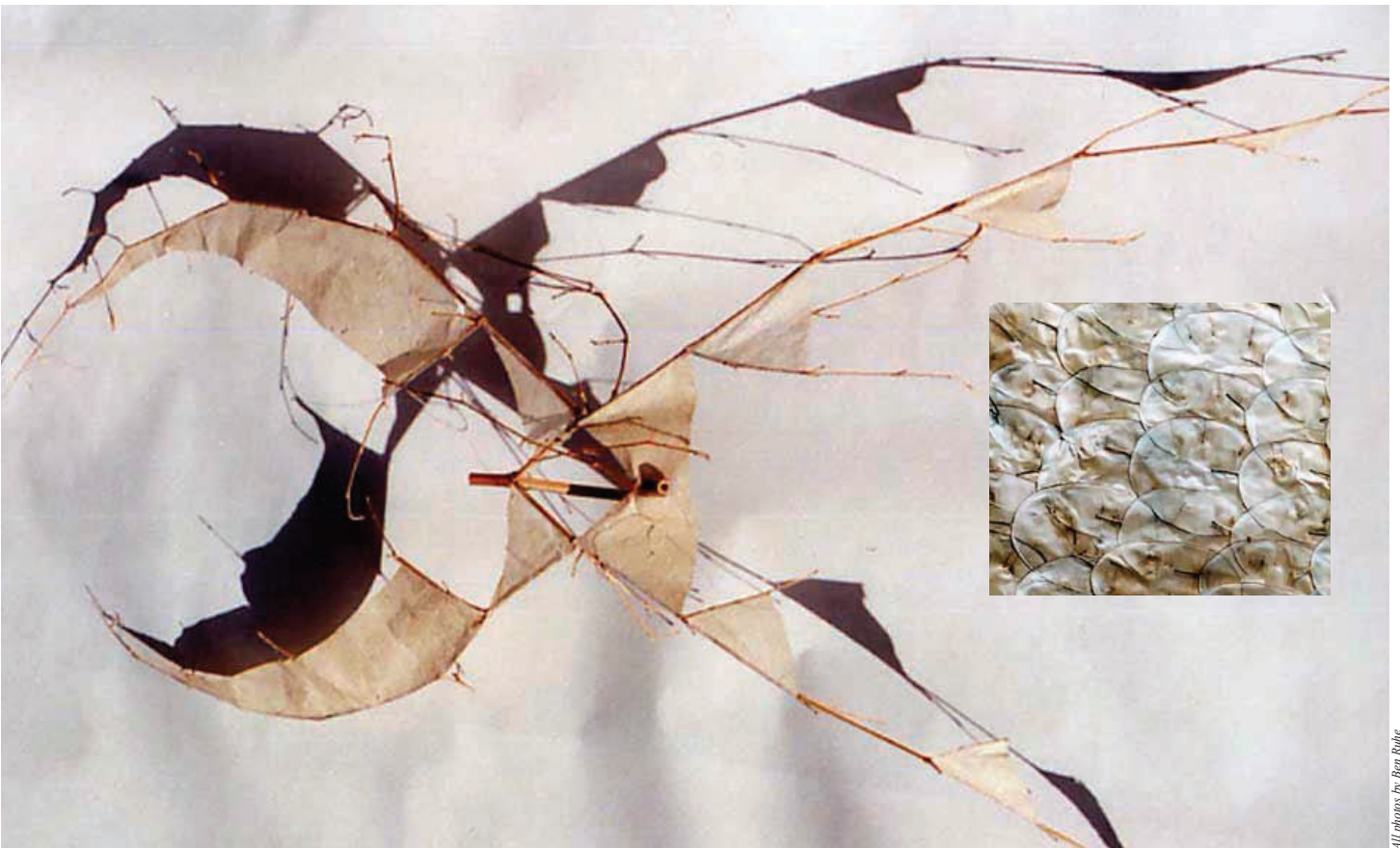


A goat by Anna. During photography, she accidentally squashed it flat. Unfazed, Anna casually bent it back to its original shape. Inset: Tie-dye patterns by Anna

All photos by Ben Rubin



A Rubin kite that symbolizes lovers united by a lot of kisses.



This creation suggests an abstracted pincers. Inset: A section of her “Aurora” kite made from silvery layered dollar plant leaves. The title honors the Seattle street on which she first saw the plant.

All photos by Ben Rube

That some of Anna's kites have the emotional power of high art cannot be doubted. Two people looking at them have burst into tears. One, a man, when questioned why he was crying, said his emotion was powerful, but inexplicable to him.

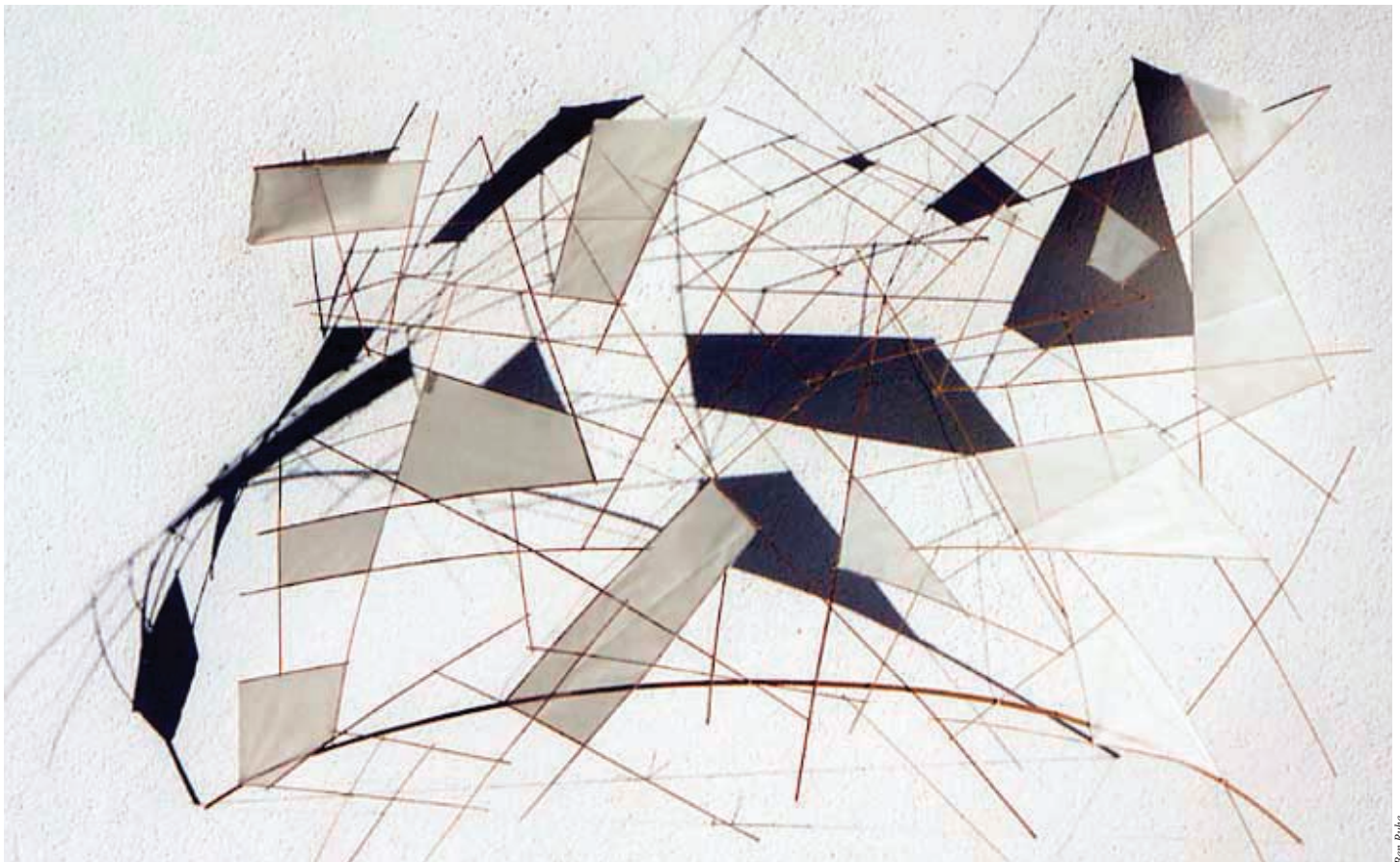
Her expressive kites now provoke commissions. "A woman has commissioned one for her husband, a writer and intellectual," she says. "I have her kite in mind. I only make a few kites a year, but I have the design of a kite in my heart for a long time. The building is very quick."

Bamboo and handmade paper are her expressive mediums, but Anna as a trained craftswoman---eight years at the Vienna Academy of Fine Arts---experiments with other materials. She once made a kite from the pods of the so-called dollar plant; its silvery translucent seeds show a beautiful veining after insects have eaten the rest. The seeds look like fish scales. She named the beautiful, functional kite "Aurora" after the Seattle street where she first saw the plant. She has experimented with the Japanese *Shibori* technique to dye kite sails and made kites from moulted goose feathers, found in Sweden where she went to school for a year.

Now 33, Anna lives on the second floor of a house owned by her nearby artist father in the alpine village where she was born. Her view is of high meadows and towering mountains (one of them named "Anna," as she happily announces). Nearby is a sheer cliff face giving onto a half-mile deep river gorge. It is stunningly beautiful country. Her apartment is packed with works of art, colorful rocks, driftwood, dried flowers, guitar, melange of books and records, posters, clothes strewn on floor, drafting table, spotlights---in short, the usual artist's messy but intriguing ensemble.

As a big, strong, energetic mountain woman, Anna does lots of hiking. Carrying everything in a backpack, she has walked across her home country, Sweden, England, Ireland, and Iceland. "The rhythm of your steps makes you clear your head," she says.

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A delicate, elaborate Rubin kite. Like almost all of her kites, it flies well.

Although she retains strong ties to Vienna and is occasionally sounded out about accepting a good teaching job there, she remains in her village, making do with the occasional paid kite workshop, exhibitions, the sale of kites, freelance work of one kind or another. She pays a daily visit to her old horse Luna, now retired. E-mail and a cellphone keep her tenuously attached to the outer world;

Anna's most recent kite is perhaps her most heartfelt creation. "In Love," she calls it. In her own words, "I tried to transform the feeling of being in love that I felt after meeting someone. The shape consists of two circles----for me they represent two human beings coming together, two circles crossing. The sticks are red, for protecting the two circles. When you are in love, you feel very protected. Inside where the two circles cross I put feathers. These symbolize the gentle, soft feeling when you are in love. The paper sail is like the skin of someone you touch. My fingerprints on the paper show the touching. There is a small red attachment. The lipstick is the kiss."



Above, "In Love." Anna made this frankly emotional kite to celebrate falling for a man, who reciprocates her emotion. At right, a detail shows delicacy of construction. On the small red attachment is an important detail. "The lipstick is the kiss," she says.



Both photos by Ben Rube

The Vienna School of Art Kites

An arts academy with two teachers passionate about kites. A kite store staff diligently spreading the word about the sport. Put them together. And what might loosely be called the Vienna School of Art Kites results----a number of enthusiasts creating and flying kites that are as much esthetic objects as machines for flight.

Teacher Anna Rubin (see Page 23) and businessmen-hobbyists Helmut Georgi and Jan Houtermans were unquestionably the catalysts.

Daniela Zitzmann. Daniela makes delicate and attractive kites, of one basic design. They pack up into a large, neatly compartmentalized carrying envelope. No big, untidy kite sacks for her. “I’m a government secretary,” she says. “Making and flying kites in my spare time cleans my mind. I want to make paintings that fly in the sky.” Daniela uses only natural materials and a basic planar shape. Being heavy, the kites tend to need a fairly stiff breeze. Once viewed, her kites stick in the mind as unusual and memorable.



Daniela Zitzmann



Zitzmann's kites are not only beautiful but notably feminine.

All photos by Ben Buhc

Steffi Rauchwarter. Steffi makes her living printing her own designs on cotton fabric for use in clothing and for interior design projects. Printing on cotton is rare, she points out. A friend inspired her to make large, dramatic kites covered with fabric and she immediately discovered the permeable cotton she uses would tolerate seriously stiff winds. Her puckish sense of humor provokes her to give all of her kites names. The first was Numero Uno. A huge red patterned kite became Pajama Man, and was joined by Pajama Madam for aerial dances. Stupid Fritz is another favorite. Steffi and partner Georg Kollmann, a computer programmer, wow visitors with their immense loft near the center of Vienna. Formerly a factory, it encompasses a whole floor and is 250 square meters in size, with high ceilings and lovely oak floors. It gives onto a courtyard and the couple awakes to bird song. Under long term lease, the showy loft has one great defect: no central heating.



Steffi Rauchwarter

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Ben Rube

In her enviably large studio, Rauchwarter designs and prints patterns on cotton fabric for interior designers. Turning this skill to kites, she makes large fliers such as the one on the table.

Eveline Bischof. A recently retired professor at the Vienna Academy of Art, Bischof may be the only teacher around who thought kites were an appropriate study for diploma work. She taught Anna Rubin art, then got into kiting because of Anna’s influence. It’s unusual for a teacher to learn from a student, as she did from Anna. Bischof’s main interest is the experimental use of paper. She concentrates on the natural beauty of materials. Seeing kites as both functional and art objects, she views them as useful in an arts curriculum because they force a student to visualize an idea. “The concept of creating an object that must fly, I think that’s fascinating,” she says. “Kitemaking is an art process when the designer expresses himself in symbols that show an individual idea. Stability, denseness, fragility, flexibility, transparence----all these can be expressed, as well as artistic elements such as texture and dimensionality. And of course the kite must be able to fly, so it is necessary to know technical facts. Flying a kite gives one a feeling of achievement, a deeply felt sensual experience. Aesthetic and sensual aspects are an important part of understanding art.”

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Scott Stimmer

Eveline Bischof



Eveline Bischof

Bischof wove this unusual and lovely loose-mesh kite sail. The kite flies well.

Helmut Georgi. A German by birth who once worked for an American corporation in the U.S., Georgi saw a niche and set up his Fly High kite shop in the center of Vienna. “After 19 years, I’m still around,” he says. Georgi’s shop is on the first floor of a mall and is light and bright with showy kites. He focuses on educating people on making their own kites. Toward this end, he sponsors classes, workshops, and twice a year kite festivals. He helps organize festivals elsewhere in Austria and he travels far and wide to fly his beloved Reza Ragheb kites. “Malaysia is a favorite of mine----both the Pasir Gudang festival and the northeast islands for relaxation; they are undiscovered,” he says. He is a long time judge for Sport Team and Competitive Kiting (Stack) competitions. With many kite shops going out of business in Europe after the 1980s boom, Georgi says he owes his success to a lack of competition in Vienna, reasonable prices, and devoted attention to his customers. “I do same day service with mail orders,” he says. “The shop does quite a bit of repair work. And I keep in touch with customers, I try to keep them returning.” Focused now on single line kites, Georgi worries about competition from the Chinese, but he hopes the new interest in traction kites will provoke kite skiing business. “Austria certainly does have a lot of mountains and snow,” he says.



All photos by Jan Houtermans

Helmut Georgi

This is Georgi's Fly High kite shop in central Vienna, headquarters of the unofficial Vienna School of Art Kites. It is located on the first floor of a mall and lures substantial traffic.

Jan Houtermans. A longtime associate of Georgi, Houtermans, also a transplanted German, is a highly inventive kitemaker. An enthusiastic global traveler, he often travels by bicycle so his construction kit and kites must be quite portable. Houtermans is up to the challenge. His “sushi mat” kites are a case in point. “Looking for materials, I discovered sushi mats which can be taken apart for their 10-inch lengths of high quality bamboo,” he says. “The bamboo is easily split and curved, using a flame. I make any shape the process dictates. It is like doodling. I tie the bamboo ends and then sections together, bowing the kite in the process, then apply colored paper with glue, trimming with a razor blade. I use *washi* paper or whatever comes to hand. I use hemp fibers for a tail, light, easy to add or subtract, looks nice----like flowing smoke. I use a three-legged bridle, two on top, one on the bottom.

Continued on Page 31

This all takes about three hours. The kites don't come out symmetrically, but lift on the left and right-hand sides balances out and the kites generally fly."

Big and spectacular but still portable are his Astrolabe kites. "How to make a quite large but still collapsible bamboo kite is the problem," he says. "The answer is connecting the parts. I hit upon using short lengths of silicone tubing, just large enough to wedge the top and bottom of two spars together. It makes a strong joint. I buy this tubing in a shop selling chemical lab equipment. The silicone doesn't lose color or elasticity and it's cheap, but the downside is it's not natural. My first kite was two rings of bent bamboo and paper, connected by a long spar that links them. From that successful beginning, I have gone on to make quite elaborate kites consisting of many circles and many spars. The point of the connectors again is so I can take the kites apart, carry the parts on my bike."

Reverting back to the Paleolithic as he tours Asia, Houtermans teaches just how simple kites can actually be and suggests how the kite may have been invented by Early Man. He takes palm leaves, braids them into a diamond shape, adds a vertical spar, attaches string around the periphery of the kite for strength, and attaches a two-point bridle. He launches the kite into the breeze and it usually flies. "I use the kite just one day, then abandon it," he says. "The leaves are just too brittle."



All photos by Jan Houtermans

On his bicycle travel in Southeastern Asia, Houtermans reverts back to the Paleolithic when he takes palm leaves, braids them, adds a spar, attaches a peripheral string for strength, puts on a bridle, and launches his new kite into the usually stiff tropic trade winds. The kite lasts just one day, then is abandoned.

Proceeding forward in time from the historical sublime to contemporary ridiculousness, Houtermans once found himself on a beach in Malaysia with nothing to do, "no rave parties, no drugs. Under such circumstance, you do a lot of silly things," he says. "What I myself did was strip off my sarong, attach stunt kite lines I happened to be carrying with me, and fly it. It performed nicely."



Left, because he routinely moves by bike, Houtermans has evolved a novel construction technique. He uses short lengths of silicone tubing to bind bamboo spars together and create quite elaborate, large kites. All materials must pack down to small size. Right, in another departure, Houtermans makes small kites by taking apart sushi mats and using the 10-inch bamboo slivers to shape lovely paper-covered creations.

