

SEA CAVES AND THEIR IMPORTANCE TO THAILAND

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THE EARLY DAYS

I was born into an environmental family. As lifetime supporters of the Sierra Club and Audubon Society, my folks grabbed the chance to explore under the sea and had me SCUBA certified at age 12. Legislation later set the minimum age for certification at 16, so I remain to this day the youngest person ever SCUBA certified in California.

This wonderful invention that allowed us to breathe underwater was a science education tool in the Gray family. Our urge for undersea explorations took us further and further from home. In 50's LA, this meant Mexico.

In many ways, I see my folks as the first modern Eco-tourists. My Thai is miserable, but somehow the entire Gray family learned Spanish. We bought a camper and a trailered boat, and explored Mexico on our own. We searched for remote beaches, or fishing villages where nobody spoke English. It was true self-contained Adventure Travel. And as an American teenager, these journeys taught me the value of basic necessities; like safe drinking water, electricity, antibiotics, rural cultural networks and true friendship. Three times, I was in

villages when the lights went on for the first time. Always, I was taught to respect our hosts and their culture and to leave more than I took.

ROOTS OF RURAL DEVELOPMENT

A decade later, I attended UCLA on an academic scholarship. Student budgets being tight, I took my breaks as the Hippie backpacker - hitchhiking back to those Mexican villages. By the early 70's, Mexico had entered the 20th Century. It wasn't all good.

Consumerism and advertising hit Mexico like a storm, raising unrealistic expectations for family budgets. Inflation consumed buying power before it was created, and social ills such as crime, theft and official corruption, turned charming village societies into ruthless money-grabbing machines.

A beach I once accessed only by boat became first a set for the movie Catch 22, then a Club Med. It was beautiful, along with the shy peasants who owned it - but the Club Med guests didn't even know the reef I loved there ever existed. It was gone, blasted out to make the movie and sludged over by hotel construction.

Even worse, the family sold out for \$200. Before, they were poor but sustainable. Now, they were landless beggars.

I began to ask questions - Why the cultural breakdown? Can we deny progress? Do people deserve safe drinking water and electricity at the expense of cultural corruption?

Is there a balance?

I combined my interests in nature, exploration and the political process to focus on rural development. Even in the 60's I chose this as my life's interest.

In the Third Grade, my Mother contacted the local Audubon Society and soon the Gray house was full of avian victims of rapid expansion. Freeway construction was the worst, taking a wide swath of ground-nesting birds, including burrowing owls. As LA grew, so did our bird orphanage. The correlation was clear - another freeway, another 1,000 birds. As I dealt with the wounds of bulldozers, graders and gunshots, I was overwhelmed with Man's arrogance to nature. Surely, we needed those freeways, but couldn't we be a bit more caring in their construction?

Between these efforts, we took those vacations to Mexico.

HAWAI'I ACTIVISM

I published my first National work in Parade Magazine at age 12, and pursued a career in Journalism. After graduating from UCLA, I moved to HAWAI'I, where every other story seemed to be either environmental or travel industry activism. I was in Heaven. During that time, the NGO's I founded kept

18,000 acres of O'ahu out of resort development. In retrospect, some developers admitted their poor planning and eventually thanked me.

On the salvageable developments, our tactic was to engage in citizen participation on the planning and architectural processes. Again, the developers thanked us.

I had a developer over to dinner the day after his \$2 billion (1978 dollars) project died. After four years, Joe finally agreed that the project was poorly located and we saved his shareholders billions, but he asked me a haunting question; "OK, you've killed a 10,000 room project, but the entire development would have created 18,000 jobs. What do you do now?"

At the University of HAWAII, I taught in the School of Journalism and served as Communications Director of the Cancer Research Center, National Cancer Institute. In 1982, I sounded the alarm on Kaposi's sarcoma - a common form of AIDS - but nobody listened. At the same time, an airline executive invited me to visit Polynesia to develop environmental and cultural friendly "Adventure Travel". I said that the only way I would enter the tourism realm would be to develop local ownership.

One trip to Western Samoa, and here we are today.

SEA KAYAKING AS A DEVELOPMENT TOOL

I was in my rural development element. To be responsible, the Travel Industry and its activists have to be students of rural development. That was obvious in 1975, and it is even more obvious today. Not too many years ago, both Phuket and Pattaya were fishing villages very similar to those in Mexico.

Rural social structures are surprisingly similar. The further you get from bright lights, the more entrenched the family values of honesty, fidelity, hard work, loyalty and trust. Small villages in any society could not survive without these values. In Samoa, Sinaloa or South Thailand, a good smile still means the same thing.

I chose Adventure Travel as my Travel Industry Experiment because it was an industrial sector I could afford (minimal capitalization keeps ownership within the grasp of locals) and one where I could teach local ownership to local people. I started with cultural tours that stayed in Polynesian villages and hiked to waterfalls and snorkel spots.

My first commercial trip was to the South Pacific Games in Apia, Western Samoa in September, 1983. I doubled as a UPI reporter, and we stayed in the private residence of Prime Minister Tofilau Eti Alesana. At one point, during a major forest fire, "Tofi" commandeered me as his Communications Minister so we could get fire fighting assistance from New Zealand.

When we stayed in rural villages, my guests declined the waterfall hikes to jump in outrigger canoes and snorkel the reefs. I stood on a beach in Savai'i, Western Samoa, wondering how to pack an outrigger on an airplane. As a lifelong seadog, I've piloted small boats since 1957, served in the Submarine service, scuba dived, surfed and still surf Waimea Bay, was in the very first Honolulu Ocean Lifesaving class, and administered the North Shore lifeguard service from my elected seat on the Honolulu Neighborhood Board. I knew how to handle a small boat on the open sea, and decided on paddling as my focus.

Coincidentally, the inflatable kayak was gaining popularity. A friend of mine, Audrey Sutherland, even wrote "Paddling My Own Canoe" about traversing the Moloka'i Coast in her converted white water inflatable. Just to prove it was safe, Audrey first swam the 20 mile coastline in an inner tube.

I like sea kayaks. They are the ultimate environmental friendly activity - no noise or exhaust, and each stroke of the paddle is a symbolic environmental gesture, a blend of old and new technology that envelopes personal fulfillment, scientific insights and natural purity.

But those white water inflatables were the only airline transportable option. After my first try with the flimsy, bulbous craft, I knew I had to come up with a real sea kayak or forget it. They might be fine with Audrey pumping the paddle, but they were deathtraps to anybody who couldn't swim for it in a jam.

I ran trips in HAWAII, Western Samoa, The Cook Islands, Tonga, Tahiti and Fiji on an alternating basis. Along the way, "Moloka'i's Forgotten Frontier", a documentary I conceived and guided won an EMMY Award. I had my own series "Inside HAWAII" on a cable network; the Travel Channel.

Sea caves became an interesting tangent; my specialty on North Shore Moloka'i and the Na Pali Coast. Formed and inhabited by pounding surf, Polynesian caves can be extremely dangerous, but are geologically simple. Those six years of experience negotiating lava tubes gave me the essential experience to venture deep into Thailand's complex tidal limestone sea caves.

This "long haul" expedition format developed teams in each country that I was molding into embryonic businesses. Day trips were never considered. I developed the trips and the companies so the locals could handle expeditions on their own. I would stay back in HAWAII, run a few trips and market the network.

LOOKING TO SOUTH-EAST ASIA

I've been stewing this development pot for a lifetime, but I didn't want to be so arrogant as to consider my theories cast in concrete, so along the way I picked up some advisors; a former Peace Corps Environmental Engineer, a World Bank Environmental Planner, HAWAII State Planners and Marine Resources managers, and East West Center fellows.

In the late 80's, while I used Polynesian cultural values to teach environmentalism to foreign travelers, I watched South East Asian economies mushroom.

Every time I saw a Taiwanese tour group circle O'ahu throwing rubbish out of their bus and trashing our beaches, I thought of 12% growth. Polynesia is paradise, but environmentalism was fait accompli - traditional. Rural Polynesia's don't need to be taught environmentalism - they already live it.

The paddling concept enlightened the guests, but they are only one segment of the environmental audience. The exercise was only operating at 50% efficiency.

What about the host countries? Thanks to Dr. Josef Leittman, an Urban Environmental Planner for the World Bank, I started studying South East Asia.

SOUTH THAILAND

From that first aerial photo of Phang Nga, I knew there had to be caves. I started studying Thailand, because it looked the most attractive of all ASEAN nations, in terms of democratic ideals, free speech, existing environmental problems and limestone sea caves. (The hongs were unknown until after we arrived.) The Malay Peninsula is the world's classic land bridge, creating the biological phenomenon of the Sunda Shelf. Numerous endangered species reside in this region.

I planned a month long survey trip, which began on January 10, 1989. Six hours after I left HAWAII, my partners fired all of our staff - including my lifelong best friend. They then proceeded to clean out the store - even collecting advance payments including airfares for my long range expeditions.

I had a productive Thai survey, but returned to a disconnected telephone.

My clients pulled me through. I still had the boats, and they provided the operating capital just so I would be there in years to come. I ran one last Moloka'i season, one last Fiji trip, and returned to Thailand on December 10, 1989, with bookings for three two-week expeditions taking me up to February 10, 1990. I had no money.

TRUE RURAL DEVELOPMENT

In a way this was a blessing because it forced the ultimate Ecotourism development - starting with nothing but the shareholder's sweat and some rags for boats. I was \$200 in the red.

On January 26-27, 1990, Dr. Dave Heeney of Maui and I found both Koh Talu and the Bat Cave. Neither was a virgin discovery, but neither were Hawai'i's sea caves. Both sites were very dramatic, but we couldn't get into the Bat Cave lagoon at high tide, so we didn't even know it existed. (2)

Dave's trip ended on Koh Samui on February 10. I cashed in my airplane ticket and took the bus back to Phuket and started Sea Canoe with the 700 baht refund.

What did I ever hope to achieve? Why go through all the hassles that come from running a business? I could certainly live a more comfortable, stable and enjoyable life as a regularly paid academic. Why a working business Demonstration Model?

Two things:

First, talk is cheap. If I sit in my Ivory Tower and declare to the World via a publishing house that a business can thrive by putting the environment first, nobody would believe me.

Second, this is the Scientific Method at work. We are still finding our way - that's why we are here today. Believe me, some of the surprises I couldn't have found in a novel.

My academic question is "How Do We Raise the Standard of Living in Rural Sites While Conserving the Culture and Environment?" Along with population control - and now AIDS control - this ranks as one of the most important issues of our day. As we sit here in Bangkok, we all know that urban migration isn't the answer, yet when we make rural areas economically attractive enough to retain home grown talent, we often destroy the environment - and the culture.

I selected Adventure Travel because as a tourism demonstration, it gains the attention of national policy makers. Sea Kayaking has the additional advantage of being "Clean" already. The challenge of hand-powered navigation on the open sea attracts influential professionals, often on an exclusive basis. Best of all, we get them during their recreation time, when they are open-minded and accepting.

WHAT IS ECOTOURISM?

Back in 1983 when meaningful travel was still called Adventure Travel, I developed what I still believe is the classic Ecotourism model. I called upon my environmental planning lessons, aboriginal cultural observations, executive experience, UCLA International Relations studies and those Mexican trips, to conceptualize a working model that in some cases still exceeds many contemporary Ecotourism definitions. I attend and speak at many Ecotourism Conferences, where the definition of Ecotourism is discussed to dawn.

My colleague delivered a paper on our development model at the "South East Asian Seminar on the Management of Coastal Cities and Towns" in Pattaya on 8-10 August 1994. The multi-agency seminar adopted the following "Recommendations on Sustainable Eco-Tourism" that seem to both define the Sea Canoe model and encompass most current Ecotourism definitions. (3)

1. Involve local people in planning, management and ownership of projects.
2. Understand and preserve local customs.
3. Prioritize the actions required for preservation of the local environment.
4. Provide a platform for the environmental education of local people and invited visitors.
5. Provide trained and qualified staff to facilitate the establishment of an Eco-tourism business.
6. Introduce internationally-recognized standards of safety.

To accomplish this industrial development, local and national governments should:

1. Discourage any commercial development within national park boundaries unless commercial development helps fund and maintain the park and does not already affect the environment.
2. Provide zoological or botanical sanctuaries, or both, within sensitive areas.
3. License any commercial establishment using the guidelines mentioned in 1 to 6 above.
4. As necessary, allocate zones in which operators can carry out business.
5. Set volume limits for environmentally-sensitive areas.
6. Provide a public education program to encourage environmental awareness.

These are excellent definitions and action plans for a traditional business. However, for the Sea Canoe Demonstration model, criteria often exceed current definitions of Ecotourism:

- 1 - The "Ecotourism" business must be successful enough to attract the attention of both classic entrepreneurs and national level decision makers, having the potential for profound impact at a national and regional level.
- 2 - Nature must always come before business considerations. Many people talk about "Trade Offs" but in pristine sites, environmental compromises are unacceptable.
- 3 - The business must be locally owned because when locals have a vested interest, they truly care. The only way to win the conservation struggle is to enfranchise the locals. I also want to show that local people have the skills necessary to operate their own Ecotourism business.

4 - Management, human resources and natural science concepts must be within the grasp of locals, who may be illiterate.

5 - The basic business applications must be easy to communicate and transfer to other industrial sectors (especially human resources).

6 - The business should encourage Travel Industry "spin-offs", especially in Paddle sports. There's a big ocean out there, with plenty of opportunities. However, sea kayaking must meet international standards of training, credentialing, environmentalism and equipment.

7 - We encourage creativity and hard work as the traditional keys to success. Carbon copycats are detrimental to both micro and macro development. Even worse, in the Ecotourism sector, they are often environmentally destructive.

LOCAL OWNERSHIP

Despite all the conferences I attend, I have yet to hear local ownership listed as criteria for Ecotourism. Most employ the vague definition: "To benefit local people". For me, this sounds like a sweeping generalization developed by a committee of absentee owners trying to look good. While Ecotourism entrepreneurs are by definition; dedicated environmentalists, most are not prepared to hand their business over to locals, especially when there was no cash investment.

We can't expect even Ecotourism operators to be so altruistic, but exactly what is; "Of benefit to local people,?" American resort developers have looked me in the eye and said that minimum wage; toilet cleaning positions were economic opportunity. In rural societies in developing countries, there is even more potential for abuse. Unfortunately, history shows us that some of the worse abusers of rural villagers are their own countrymen. Thailand is no exception, nor is Thailand's current sea kayaking industry.

Sea Canoe "benefits local people" by developing local owners which we train ourselves. To further maximize local benefits, Sea Canoe employs tough human resources and community outreach policies in our copyright and marketing agreements. Not only do we want our staff and host communities sharing in our success - contributing to an already great product - we want to motivate them to be ardent conservationists. The only way to do this is to enfranchise them into our "Environment Before Business" success.

Here's a classic example: A Karen soldier showed me a wild ox horn, he was using as a trumpet. I asked him how much he got for killing the ox. He replied that with good luck an ox kill renders baht 3,000.

I then asked him if he would stop hunting oxen if he could make a sustainable baht 3,000 per week from guiding tourists to see a herd of sixty oxen.

We all know the reply.

As we work with the Karen, Sea Canoe hopes to develop a Nature Guides' organization of Ma-and-Pa entrepreneurs who will be dedicated to preserving the Nature that brings them prosperity. "Farang" (foreign) Ecotourists will be their clientele as soon as the SLORC rampage ends.

These are small scale businesses, right down to the individual level. How can they possibly be important to Thailand's Economic Development?

Well, the Ma-and-Pa "Environment First" business called Sea Canoe employs 60 staff, with a baht 500,000 monthly payroll, generating baht 3,000,000/month towards Phuket's economy.

ARE ALL ADVANCES ECONOMIC?

The importance of Ecotourism to Thailand's social fabric can be more significant than any economic gains. Development of managerial and business skills, a conservation ethic, friendly competition, business ethics, interest in natural sciences and the concept of self-determination are potential spin-off benefits for Thailand.

SEA CAVING FORMAT

Sea Canoe is an expedition company with a day trip problem. We ran some demo trips around Honolulu, but never on a regular basis. Why a day trip in Phuket?

Survival played a part. Expeditions take a longer lead time to book, and we were broke. But the greatest factor was that for the first time we could put out a day trip that gives a slice of our expeditions. From a quality, volume and educational standpoint, the day trip gives the core of the traveling public - those five-star hotel dwellers - a chance to see what Ecotourism is about.

Phuket presented a classic demonstration project site; with nearby sea caves.

We first entered the Bat Cave Hong on February 23, 1990 with a tidal level of 20. My guests were Dan and Sarah Wagster, friends of friends from Honolulu. They stayed at the Le Meridien, and were intrigued by the find Dr. Dave Heeney and I made on January 27, 1990. On that day the tide was 30, allowing us access into the Hong. We expected the cave to do a horseshoe and return to the ocean as a sea tunnel.

The find was dramatic, delicate, pristine and exciting, but I immediately knew that Bat Cave was not a virgin discovery. Although we've made first discoveries on Penak -- Bat Cave's entrance was too easy; even a rubber dinghy with a motor could enter the cave.

Pristine delicacy combined with easy access can be catastrophic. Motors have no business in caves, especially ones with bat colonies. Motorized

traffic from Phuket was growing daily, so my rationale was the same as Moloka'i and Na Pali, HAWAII; and Taveuni, Fiji. Sea kayaking commercialization creates both an environmental awareness and an ongoing stewardship that actually helps preserve these endangered sites.

Additionally, the oyster-filled limestone tidal sea caves are so dangerous and complex, I never imagined anybody would be so foolhardy to copy-cat us.

A NEW DISCOVERY

From a scientific standpoint, I was amazed. I'm a student of marine geology - especially sea caves - and I knew of nothing like this.

Passage through the 300 meter Bat Cave is startling enough, although it has few stalactites. But emerging inside an inland tidal lagoon surrounded by soaring cliffs was absolutely stunning. How was it formed?

I'm a "Systems" or "Ecological" thinker, so I perceived a cave/Hong system created by both fresh and salt water. Percolation creates swallets which become collapsed caverns, eroded into open air sumps. Look at these collapsed caverns as rubble imploding inward into its own cavity, rather than a large dome-covered chamber.

Salt water tidal action works against fault lines to eat into the island and eventually form a cave. Caves at different heights are testimony to different sea levels throughout the millennia.

This fresh water-salt water combination creates some unique effects, such as intensely vertical cliffs, and tidal "napes" inside the lagoons. These structures will be addressed in detail below.

THE RESPONSIBILITY OF DISCOVERY

In the 20th century, the scientific side of Western exploration overcame the macho exploitation side to create a sense of responsibility. Sir Edmund Hillary works to reforest the slopes of Nepal and clean up mountaineering trash from the Himalayas. The Special Committee on Antarctic Research limits commercialization of the icy continent to science and tourism.

This ethic is more Asian than Western. I see it as Taoist. Once we "discover" a site - and certainly when we commercialize it - we are ultimately responsible for that environment's welfare. The thrill of virgin discovery is overwhelming, especially these days. Unfortunately, it also carries a burden. Until these sites are effectively protected by legislation with on-site teeth, I must devote my energies to their protection.

SEA CANOE - IDEAL FOR SEA CAVE EXPLORATION

Sea kayaking offers the possibility of absolutely no environmental impact whatsoever. Very few activities can make that claim.

Even so, we had to adapt the traditional sea kayaking format from self-paddle to guided paddles. It would be unfair to expect guests to navigate these complex caverns in the dark, especially first time paddlers. A properly trained guide in each boat educates the “kec” (guests), protects them from the cave, and more importantly, the cave from the guests. It also creates a 1.5 guide jobs for each kayak.

Why do people stand in line to pay \$100/day to get their butts wet, lie down in dark smelly caves and thrust their bodies toward razor-sharp oysters? This is an important question - how well Thailand understands the answers will determine the role Ecotourism has in your economy, and the style of the entire industry.

To date, not many Thai's understand Ecotourism, or the Ecotourism market. Most of those who do were educated in the West.

How can a Thai be expected to understand a Brit's yearning to return to the vagabond ways of Captain Cook? An American's feelings towards Lewis & Clark? Yet this Mystique of Discovery is essential to the Sea Canoe formula.

One reason we jealously preach volume limits is that for most Farang, the Hongs create “A Window Back in Time” to an era before humans inhabited the planet. Obviously, when there's a traffic jam, this feeling is lost. I leave it up to you to tell me how many Thai's currently grasp the Time Machine aspect of Ecotourism.

Drama and Natural Beauty are universally understood. Or are they? In the back of a pick-up truck on the way to Honolulu, a militant “Black Short” Hawaiian told me that although he grew up in the beauty of HAWAII, it took an outsider - me - to bring the insights so a local could appreciate it. Countless times, locals have told me that growing up in a stunning area doesn't necessarily mean they appreciate it.

Ambiance and Exclusivity are valuable commodities. People pay \$100 a day because they expect to be members of a small group. We feel that ambience is lost when more than eight kayaks populate the Hongs. After that, our competitors are stealing money from our customers' expectations, and stealing good will from Thailand's image.

If we attract Farang with a promise of responsible Ecotourism, and people pay top “long haul” dollars to end up in a crowded site, Ecotourism in Thailand is dead before it starts.

International Standard Quality is a basic for Sea Canoe. On the open sea or deep inside a cave, people know they can trust their families to the Sea Canoe name. They also know their nature observations are environmentally responsible. These are important points to the Eco-tourist, who may take 4-6 adventure vacations a year. These people judge Thai products against Kenya, Costa Rica, Nepal, Australia and all other countries with Ecotourism.

Competing with the local standard may pull people off the street, but it won't bring quality travelers to Thailand - or bring them back.

ECONOMIC POTENTIAL FOR THAILAND

For Southern rural development, Sea kayaking presents enormous potential. From Burma to Malaysia, the Andaman Coast is a sea kayaking paradise. With proper support and promotion, the area can host dozens of companies, create hundreds of jobs and create a "Quiet and Clean" sustainable industry with benefits and ownership within the grasp of local villagers.

On a National level, Ecotourism sites are disappearing fast. National Parks and provinces including Tak and Kanganaburi are Thailand's only hope. From a rural development standpoint, the potential exists for only pockets of economy.

I suggest that Ecotourism is a rural development tool; best left as a decentralized cottage industry. This industry offers meager financial rewards for major financial players. Ecotourism won't gold plate your Mercedes'.

If a Thai Ecotourism Association is formed to consolidate decentralization, the members' total value won't ever equal the value of even one Bangkok five-star hotel.

Later, we will explore the economics of Sea Kayaking in the Development and Planning segments. For now, the other significance of Phang Nga's tidal sea caving is scientific. This seems to be brand new information.

Can there be Virgin Discoveries in the 1990's? Yes, basically in three areas:

- 1 - Outer Space
- 2 - At the bottom of the sea
- 3 - In caves

The highly specialized exploration science of Tidal Sea Caving is only five years old. Sea Canoe developed it in Phang Nga, and to date, we remain the only group engaged in scientific observation and primary exploration. We are so new that all of the Speleological societies we've contacted have never even heard of tidal sea caves. One day, as it should be, they will credential them.

How could this unusual activity hatch so recently?

Difficulty of access is one explanation. These dark and jagged caves open and close with the tides, are carpeted with razor sharp oysters, experience dangerous currents at tidal changes and host jelly fish and poisonous snakes. Swimming is inadvisable. Their floors are mud, laced with sharp limestone and broken oyster shells. Walking at low tide is usually impossible.

Until fifty years ago, the caves and hongs were within the range of the Estuarian Crocodile. I still worry about an encounter in every new discovery.

It wasn't until 1987 that I designed the world's first self-bailing inflatable sea kayak, the only practical boat for entry. Thank goodness I have a penchant for making everything heavy duty, or even these boats wouldn't survive the oysters.

Finally, Sea Canoe is the first team to our knowledge that actually studies and explores sea caves. We only started 12 years ago.

Even in Polynesia, tides can be a factor. Sea caves are surf battered, with high ceilings and deep bottoms. Even so, they are simple structures rarely more than 100 meters long. Just avoid extreme high tide and big swells.

Limestone sea caves, however, are formed by tidal action eating away at a crack in the rock. By definition, the ceiling is the extreme high tide line.

(It is very disconcerting to be lying on one's back in tight quarters, exploring deep inside a dark cave on a rapidly rising tide, while watching the oyster ceiling descending closer and closer.)

Although our competitor's claimed in Expression magazine to have discovered the caves by helicopter three years ago, true sea kayak explorers would consider this "cheating". In fact, we spent four years researching South Thailand before we came here. A lack of helicopters; the scourge of the Na Pali Coast; was a primary reason for coming to Phang Nga. Our only aerial observations were the photos in T.A.T. brochures.

In January, 1989, I spent a week paddling Phang Nga's coastlines, logging my times, tides and promising locations. Through systematic searches and sweat, we found the hongs in Koh Hong, well known to local fishermen.

I organized three two week expeditions from my repeat customers to come back and further study Phang Nga from December 1989 - February 1990. On the last of these trips, we found the Bat Cave at high tide.

Ironically, true scientific exploration began with the day trips. I obtained some tide tables and logged our entries daily. Within a one month cycle, we were pre-designing our entry sequences.

We incorporated exploration into our day trips, measuring (but not mapping) caves; following up on promising sites; expanding further into the Bay. I developed a method of visual recognition of promising sites from sea level that produced a 50% success ratio. Most of our South Bay sites were established in 1990. We ran some trips to Koh Talu, but it wasn't until 1991 that we explored Talu in detail. Because of its complexity, Koh Talu is still my favorite trip despite the noise from longtail boats visiting James Bond Island.

Thomas Edison said that genius is 1% inspiration and 99% perspiration. While our two university graduate partners took turns trying to take over the company, I poured out my share of perspiration, paddling coastlines at high,

medium and low tides, logging every promising nuance. We found that some caves open at high tide, some mid-range and some low. Levels of the mud floors are easily understood by alluvium drainage and blockages. Varying roof heights are sometimes explained by swallet drainage and differing fault line configurations.

Various obstructions limit the tidal range entry levels. As mentioned, cave and lagoon depths are determined by the rate of alluvium drainage. However, roofs are irregular and often have delicate speleotherms growing downward. Rocks may obstruct “channels” and in many cases, the “windows” are simply too young to offer easy passage.

In the first year, we logged the tidal heights of varying entry attempts. We then returned within an ever constricting range until we found the right level to gain access. Using this method, it took us six weeks to access the back lagoon of the “Diamond Hong” system. The range of entry is only one decimeter, and on spring tides, we have 8.5 minutes to access the Hong and get out.

Now, we are surprisingly accurate with first time visual recognition of access levels; an educated guess that comes with experience.

Obviously, this is a tricky business. Once, I explored a major cave on a rising high tide, with a fast moving current in the ten-meter wide channel. Due to the rough conditions I delayed further exploration, but estimated an entry level. When we finally returned, my guess was spot on. We also discovered a window 400 meters in the cave that could have killed me had I attempted an entry on that first try.

THE SCIENCE OF TIDAL SEA CAVES AND INLAND LAGOONS

Limestone Karst covers 17% of the Earth’s surface. The field supporting the Sunda shelf is extensive, running from Indonesia through Yunnan, China. The famous Gui Lin is limestone Karst, (as is Halong Bay in Vietnam) and is much more extensive than Phang Nga or the Western Philippines. This Karst has been well studied, and considerable doctoral thesis’ have been written on Karst.

Above the high tide line, marine Karst offers few surprises. Swallets and fault lines form in traditional manners. Sea caves are obvious enough they should also offer few surprises. Strangely, the body of knowledge on even easily accessible large caves is sparse.

Swallets are drainage tubes that honeycomb limestone scarp, both on land and in the sea. The calcite that forms speleotherms is usually dissolved in the Swallet erosion process, to be cemented to a site further down the drainage system. Swallets range from small cracks to extensive caves, and are always on a vertical plain corresponding to the angle of strata. In Phang Nga, the strata run at a 60-70 degree slope. Swallets are also 60-70 degrees.

Tidal caves are formed by the hydraulic action of rising and falling tides. This force can be considerable, as evidenced by the napes at the North End of Koh Penak, which overhang as much as 15 meters from the shoreline.

When water action finds a crack in the rock, the erosion process begins. The crack is gradually enlarged and elongated. Sea water erosion is conducted on a horizontal plain within the tidal range.

When the erosion process is mature, cavities may form within the caves that collect water at high tides. This increases the volume of water passing through the front of the caves, accelerating the erosion process.

The above processes are all well documented. Speleologists and geologists have explored Swallets for centuries. Although they haven't been studied as much, sea caves offer a simplistic explanation for their formation.

However, the interaction of the Swallets - created by fresh water - and the salt water sea caves are unique and unstudied. As near as we can tell, Swallets are generated on the islands' top surfaces in the traditional manner. Rainwater, slightly acidic with a pH of 5.6, pools on the irregular surface. It finds cracks or corrodes them, and percolates down to sea level. The rainwater drops straight down until it hits particularly hard strata, and generally slides down the angle of those strata. This rarely takes the form of a large cavity inside the islands. Rather, small honeycombed water passages are generated, most too small for human to traverse. As erosion continues, this "rubble" falls in upon itself.

In mature stages of erosion, the surface collapses, creating a depression, or "sump". This sump gradually falls in upon itself, collapsing into a ravine in the center of the island. When this depression reaches sea level, its walls are angular. A conical "floor" is created at sea level.

On dry land, slopes remain in this angular state. However, when the percolated erosion joint tidal waters at sea level, newly observed interactions are created.

When the point of the cone reaches sea level, the diameter enlarges due to tidal action. The sea water eats away the point of the cone until a flat bottomed cylinder with perfectly vertical walls is formed. Frequently, there is a tidal nape inside a cliff-lined lagoon.

Napes are a Marine Geological term denoting the undercut portion of a cliff. The name comes from the back, or nape, of your neck where the base of the skull protrudes beyond the neck (base of the cliff). Napes are formed either by surf or tidal erosion. Their elevation correlates to varying sea levels. Sometimes, as on North Koh Penak, the tidal erosion is so dramatic it cuts through several former sea levels, creating one, enlarged nape. The North Penak nape is so large it seems it must have been surf created. After a year of study, I concluded that the nape was merely created by the forceful tides of several different sea levels.

The existence of napes inside hongts proves the importance of tidal erosion in these inland sites, not surprising since the lagoons themselves are tidal.

Why were these sites unknown until today? I've already discussed the difficulties of a cave traverse, but why not aerial mapping or spotting? Why not hike over the top?

Over thousands of years, the tidal napes inside the lagoons shear off overhanging sections until totally vertical cylinders form. A mature "Hong" has vertical cliffs several hundred meters high, but a diameter of perhaps only 100 meters. This gives it the shape of a water glass.

To see the bottom of an opaque glass, we must look directly down into it. Since there are few glass-bottomed airplanes, Hong floors are difficult to see even from the flight deck. I've made three aerial surveys in a light plane, and even the huge Bat Cave Hong is difficult to see when you know it is there.

Many Hongts have mangrove forests in the bottom, and all are mud flats at low tide. Hongts don't even show up on aerial photos, unless you already know they are there - and the photos were taken at high tide.

Getting over the top of the sheer limestone cliffs is virtually impossible for all but a technical mountaineer, and none ever tried it. These factors, combined with the tricky cave traverses, kept "Hongts" a Secret of Mother Nature until this crazy Farang unlocked the secret.

The most significant Tidal Sea Caves of South Thailand are as follows:

1. **BAT CAVE, KOH PENAK, PHANG NGA BAY:** (1-27-90; 1-3-90) - The Bat Cave is one of Thailand's largest sea caves. Several huge Swallets drop into the roof, eroding away the mid-level floor between the current tide level and the last. In places the ceiling is 30 meters high. The cave follows a fault line through the base of 400 meter cliffs for a distance of 300 meters. Although the channel is up to 10 meters wide, currents created by the enormous volume of the hongts can be dangerous. Loss of the bat colony habitat is the greatest danger for the Bat Cave, along with the pristine Hong habitat. A small colony of a half-dozen mangroves maintains a hold in the very back of the back Hong. It seems as if this colony once carpeted the large double Hong, and a study of the mangrove depletion may afford interesting insights.

2. **MANGROVE CAVE, KOH PENAK:** (4-15-90) - The Mangrove Cave has a sand bottom. I found it by tracing the sand cuts at low tide. The "Over-Under" cave follows a fault line with two openings between levels. Cave diameter is small, configuration is complex. There are several easy-to-reach stalactites on the low-lying ceiling. This is a "Creeper" cave, requiring guests and guide to lie flat on their backs to gain entry.

The Hong behind the cave has a sand floor for ten meters, then a mud bottom. Two varieties of mangrove, one rooted in sand, the other mud, thickly populate the Hong. The north cliffs cross-sections some Zigzag fault lines, suggesting the apex of a pressure ridge.

For three years, mud flats hosted auger shells 1.5-2.0 decimeters in length. Normal "Outside" specimens range to 1 decimeter. This colony disappeared within the first month of our copy-cat's operation.

Due to the size of the cave and Hong, and the high Hong floor (which includes sand), I believe this is the youngest Hong we've found on Koh Penak.

3. **Diamond Hong** (4-20/6-5-90)
4. **Koh Talu** (1-26-90)
5. **Honeymoon Cave** (11-15-91)
6. **Hong Yai** (11-14-91)
7. **Gibbon Cave** (2-12-93)
8. **Princess Hong** (Open)
9. **2K Cave** (3-20-93)
10. **Chao Mai** (Open)

THE ECOLOGY OF PRISTINE "HONG" ECOSYSTEMS

A. In many sea cave/Hong systems, the fragile geology is out of reach of the everyday tourist or their untrained guides. In these cases, Ecosystem burdens and cave configurations should determine carrying capacity.

Our first impression was that since the Hong is open to the Sky and enjoys tidal flashings that the Ecosystems cannot be discrete from the "Outside" world. However, upon close inspection, differences do emerge.

Botanically, the Hong cliffs are populated by trees rooted via both radial root and rock boring systems. We do not know the names of all of these species, but since they root in rock, they obviously contribute to the erosion process. Novice adventurers who haven't seen much of the outdoors are often impressed with "trees that grow straight out of the rocks". Geologists know these rock-boring species are essential to the erosion process.

Mangrove systems range from the thriving double species colony inside the Mangrove cave to the dying colony inside the Bat Cave. Studies of both the Bat Cave and Diamond Hong colonies may determine why these populations are declining (although they remained static for the past five years). All the Penak hongs may also give insight into mangrove site selection. For example, why are there no mangroves in the front of Diamond Hong?

On several occasions, we've taken tropical botanists into the hongs who rave over the new species they find. Since these have always been Farang, I wonder if some of these specimens might already be known to Thai botanists.

B. Malacology - As mentioned, species tend to grow larger when they are undisturbed.

C. Ornithological - Numerous bird species inhabit the hongs. Close observations are easy, although I doubt that there are any new scientific insights.

D. Primate studies - The opportunity to study the social structure of wild macaques is superb. We can drift silently right into macaque family, which usually takes 5-10 minutes before they go about their business as usual.

E. Sensory perceptions - In addition to increased sensory awareness, three dynamics that seem to affect everybody include:

- 1 - The feeling of being surrounded by rock on 360 degrees.
- 2 - "The Buzz" we all feel when we are the first ever to enter a Hong.
- 3 - The strange sensations that come from entering a Hong at night. There are three light sources; stars, fireflies and bio-luminescence.

SCIENTIFIC DETERMINATIONS OF CARRYING CAPACITY

A basic premise of Sea Canoe is that there can be no commercial trade-offs in pristine sites. If this policy is practiced, can Thailand's Tidal Sea Caves and Inland Lagoons have an Economic Significance?

Experience at Penak and the Princess Hong shows that wet caves can accept a significant volume and remain geologically intact. However, in the partially dry Diamond cave, speleotherm destruction is extensive.

Loss of habitat is another matter. In high volume sites with untrained guides, wildlife sightings are rare. However, our studies show that within 1-2 hours of human departure, primates and birds begin to return to these sites probably because visitations are transitory invasions of wildlife privacy.

This makes the human element the crucial factor in determining if non-invasive commercialization of these pristine sites is possible. Guest aesthetics play an important part in setting entry possibilities. Another factor is environmental training by both guide staff and guests.

We cannot allow the geological beauty of these cave/Hong systems to overshadow the biological carrying capacity of these sites. Hong ecosystems should have the same carrying capacity guidelines as any other wildlife habitats. A multi-discipline study to scientifically determine carry capacities of each particular site should be undertaken to determine a benchmark for commercialization. Each study group might include a marine geologist, botanist, zoologist; and cave management, water safety and sea kayaking professionals. A variety of elements, including but not limited to marine geology, should be considered. As mentioned, guest aesthetics should be a major consideration.

Environmental Guide Training on three levels should be required by law. Company-paid registration fees can pay for this government training.

1 - Thai Ecotourism Guide: A nationwide category involving generic conservation principles.

2 - National Parks Guides: Each national park should have a site-specific training program required for all guides operating for hire in a national park.

3 - Sea Cave (or Land Cave) Guide - A specialized credential required of all guides taking guests for hire into Thailand's caves.

In addition to training, credentialing and legal volume limits, other mechanisms exist to help protect pristine sites. An organization of responsible Thai sea kayaking companies is currently being formed to encourage international level professional standards, self-imposed volume limits, voluntarily pay National Park user fees and generate host community environmental awareness. National Parks can develop educational displays and outreach programs financed from Park user fees.

Enlightened, locally-owned companies who want sustainability have a vested interest in protecting sites, and can spread the word throughout their own communities. Unfortunately, the demonstration shows that copycats have no interest in either sustainability or developing community awareness. All that matters to these people is maximizing profits today.

THAILAND ECONOMIC DEVELOPMENT

With the advent of new "Sit-On-Top" hard-shell and inflatable boat designs, Sea Kayaking presents excellent Quiet & Clean Economic opportunities:

Sea kayaking is on a development curve similar to SCUBA, only 30 years later. Because participants do not have to breathe underwater, the industry's potential at least rivals SCUBA, and probably exceeds it. Credentialing is in the final stages of international standardization, and entrepreneurs are practicing sophisticated marketing and management techniques. The gear manufacturing and retailing industry in the United States is large enough to support its own slick-stock magazine, "Paddle Retailer".

With the introduction of "Sit-On-Top" boats, sea kayaking has skyrocketed to the point where user numbers are constantly obsolete, but if we include resort beach rentals, approximately 5,000,000 Americans paddled a kayak this past year. In HAWAII, there are over 3,000 private owners of Ocean Kayak Sit-On-Tops. Since these plastic boats are indestructible, there is no turn-over in used boats, making this statistic even more impressive.

Sea Canoe averages about 900 guests per month. Most of them would never consider SCUBA. Granted, these are Five-star hotel tourists, and we do the paddling on the day trip, but there are certainly more people who can be interested in paddling a kayak than in breathing underwater.

This is not to say that Sea Kayaking is a mature industry like SCUBA. Don't let Sea Canoe's success fool you. We offer a highly unique product found nowhere else, adapted an unusual format to integrate this product into the standard travelers' activity mix, and applied the skills of a \$250/hour marketing consultant to promote it.

Americans are so provincial many of them don't even know where Thailand is, and sea kayaking is still relatively unknown in Europe. There is still considerable market development work to be done before Thailand is recognized as a "Sea Kayaking Destination" that self-drives significant numbers of tourists. A large, long term cooperative effort between the T.A.T., Thai Air, concerned operators - and our partners in international media - is required if this dream is to be realized. At this point, all we have is excellent potential, and one innovative kayak company offering a unique and dramatic product found nowhere else.

Until we spawned our copycats, no other kayak outfitter in the world placed a guide in each kayak, used inflatables for day trips, specialized in sea caves or employed a \$250/hour marketing consultant. The sea cave format we developed is still an aberration in the paddling world unique to Phuket. That's one reason we called our company "Sea Canoe" rather than "Sea Kayak". My strategy was to use the cave trips to promote more traditional forms of kayaking in South Thailand. Now, my marketing challenge is to get both the Thai public and Thailand's visitors to understand that there is a mainstream form of sea kayaking that makes an ideal vacation in the waters and islands of South Thailand.

Here's the best part. By its very nature - participatory, personalized, sensitive - sea kayaking provides cultural advantages over other forms of tourism. The challenges of open sea hand-powered navigation attract inquisitive professionals who want to interact with Nature - a high income, high sensitivity demographic. Most of our market stays in Five-star hotels. However, there is also room for lower-end products as long as they meet professional standards.

(Readership surveys show that American sea kayakers enjoy an income level three times the national average.)

Sea kayakers visit a place because they want to learn about it, from both a scientific and cultural standpoint. They visit a place to enjoy its beauty, and extend themselves to see that it remains the same.

Especially when beach camping, guests and staff get to know each other and discuss their unique cultural differences. In Polynesia, where we re-created an aboriginal culture that lived in harmony with Nature, our trips were as cultural as scientific. Here in Thailand, we can do the same once we learn the lifestyles of Thailand's aboriginal cultures of 1,000 years ago.

SAFETY AND CREDENTIALING

Audrey Sutherland once told me that "Judgment" is the most important factor in sea kayaking. When I'm recruiting staff - which is always - the first thing I look for is "Ocean sense". Back in HAWAI'I, I looked to surfers for my guide pool. Surfers have a keen knowledge of the sea, or they don't last long.

Fishermen also have good knowledge of the sea, especially local conditions, so they provide their own unique talent pool - and make sea kayaking the perfect vehicle for our rural development exercise.

However, motorboat experience is only the foundation for sea kayaking, the most complex form of marine navigation. I read the safety columns in paddling magazines, so I'm constantly amazed at people who want to start up a kayaking company after their first paddle. Here in the "Land of the Free", some people take this "Arrogance of Ignorance" to the ultimate.

Credentialing is essential for safe sea kayaking. Without impartial, tough government controlled professional credentialing, any fellow who can afford a kayak will start selling trips. It looks easy, but hand powered navigation requires that the slightest nuance of weather must be first noticed, then judged and finally acted upon. Furthermore, a professional guide must read the skills of the group, and properly judge their ability to deal with the new situation.

I don't know if such statistics are kept, but from media observations it looks like sea kayaking fatalities far outnumber white water rafting and kayaking disasters. A year ago, there were six deaths in March alone, four in Britain and two in HAWAI'I.

These tragedies occurred under the highest standards. The British guide was credentialed, HAWAI'I was warm water, and both regions have excellent search and rescue infrastructure.

It may not be fair, but what happens if a four fatality disaster occurs in Thailand, with no credentialing and ineffective search and rescue coverage? We all know that the international media would jump all over it, if only because this is Thailand.

Professional standards minimize the odds of risk, and they cover our backsides if something ever does go wrong. Most important, they save lives.

MARKETING OF STANDARDS

As mentioned above, sea kayaking attracts the quality tourist you want to bring to Thailand - affluent, inquisitive, culturally sensitive, supportive of national development... people who consider the professionalism and safety of a travel product before they buy it.

The Ecotourism market demands professionalism. If an American, Brit or German buys a guided trip, and discovers the guide was given a paddle with

no training, they justifiably feel cheated. When instruction services are sold, customers always expect credentials. Ecotourists are paying for professional expertise and a safe trip home. If Thailand wants prosperous sustainability, deliver professional standards.

Standards are more than just marketing. In activity involving risk, professional training and credentialing are everything. This concept may be in conflict with Thailand's "Land of the Free" mentality, but if the Kingdom wants to develop a high profile image as a safe and responsible Ecotourism destination, you must institute international standard professional credentialing not only for sea kayaking, but all dangerous activities, including white water rafting and kayaking. I am shocked that even in the matured SCUBA industry, no license or credentialing is required.

This isn't asking the impossible; I am merely suggesting that Thailand maintain the same standards as exist in your markets.

PLANNING

In my role as environmentalist, I often host visiting "experts". They have a universal impression of Thailand - no planning. Today, dealing with Bangkok's traffic, all of us have first hand experience with the effects of poor planning.

Any successful effort is well-planned, and planning is essential for sustainable Ecotourism. Without it, you leave environmental protection to commercial operators. Is anybody here naive enough to believe that all commercial operators will share the same environmental commitment as Sea Canoe? As we can see from the Bay, only one greedy, irresponsible uncontrolled operator can destroy the entire show.

There is hope. I couldn't leave HAWAII until 1989 because I was a small player in the development of the HAWAII State Marine Resources User Management Plan.

This island state of HAWAII is forced to deal with its Marine Resources in an objective manner. The Department of Business, Planning and Tourism Ocean Resources Branch, headed by Dr. Craig McDonald, has an international reputation.

Too late, HAWAII learned the value of planning. In the 70's, Hawaii's environmentalists said don't kill the goose that lays the Golden Egg. In the 90's, with simultaneous defense and tourism cutbacks, Hawaii's economy is in trouble.

It isn't Dr. McDonald's fault. He learned that in a few "Disaster" sites, you can't turn back the clock. However, the Hanauma Bay challenges were solved, most marine industries brought into line, and sustainability achieved. Today, Hawaii's ocean recreation industry far overshadows agriculture, and is proving more sustainable.

Planning in the late 80's was the key. It should have been done two decades earlier.

A HEAD START

Sea Canoe is the case study for Thai-based Ecotourism. Fortunately, we are also Thailand's first true Ecotourism company, and approach our efforts as a demonstration - not a business. We didn't meet market demand and take 80 people a day - as we well could have - and we take the time and expense to lobby for responsible environmental planning.

Let's take advantage of this Head Start and develop an Ecotourism plan - enforced with legal teeth - for not only Sea Kayaking, but SCUBA, white water paddling and rafting, and all Ecotourism in South - and North - Thailand. At stake are the most sensitive, delicate and beautiful natural sites in Thailand - among the most dramatic in the World.

We are also gambling with a fair amount of money. I don't know the figures for Thailand, but in HAWAI'I in 1992, Ocean Recreation revenues outpaced Sugar and pineapple Eighteen to One (\$560 million to \$35 million). Ocean recreation jobs outpaced agriculture by two to one. (5) Projections for 1995 expect Ocean Recreation to generate \$750 million for the State of HAWAI'I. That's almost 19 Billion Baht, and Hawai'i's sea caves aren't that great!

Before it was too late, HAWAI'I got the planning virus. That's why it is so prosperous today. "Although the stated purpose may seem contradictory to some, i.e., preserving resources in order to promote industry development, it is axiomatic in this case. It is quite evident that these resources will continue to support these industries only as long as the resources remain attractive to the users." (6)

We don't need to look much beyond James Bond Island and Koh Pee Pee to get the point. Clippings documenting this environmental disaster are too extensive to footnote. When I went home last summer, people who didn't even know which continent Thailand was on asked me how we could let one of the World's most beautiful islands be destroyed by over-development. At the same time, I can't get my sea kayaking compatriots to travel to Thailand because "It's too dirty".

Don't feel like the Lone Rangers. These mistakes only mimic those we made in the West. The difference is the history and case studies are now there so Thailand can learn "The Easy Way" instead of repeating the same mistakes we made in the West.

In HAWAI'I, our planning group looked at three "Inadequate Management" studies. All are growth oriented, yet Visitor surveys quantify all three as contributing to the current overall slump in Hawaii tourism. To learn from the mistakes of others, let's take a look at them. (7)

Molokini is a crescent shaped island eight miles off Maui that is cursed with a beautiful coral reef. Unfortunately, it was unregulated until too late, and now it is easier to walk across the snorkeler's backs than it is to get in the water. It was interesting to discover that the Molokini Snorkel tour sub-industry out-grossed Hawaiian coffee - until the drop in tourism.

Ironically, those two HAWAI'I sea kayaking fatalities occurred near Molokini.

Na Pali is cursed with one of the world's most beautiful coastlines. Zodiac boat cruises out-grossed the entire pineapple industry. Helicopters buzzed over this wilderness from 8AM to Sunset. Yet when we applied for commercial sea kayaking permits, we were told that there was already too much commercialism.

Finally it became too much for the local residents. Two years ago, there were demonstrations at the beach and airport. The entire industry died in one day. Despite over 2,000 privately owned kayaks on Kauai, we still can't get a commercial permit.

Hanauma Bay is probably the world's most famous snorkeling spot. Five years ago, the Park hosted over 10,000 snorkeler's *per day*. People were drowning that nobody even knew about. Hanauma Bay became a public relations disaster, and for a tourist destination, image is everything. In this case, the State and County worked together, instituting volume limits and professional standards after the fact. Today, locals still can't get to Hanauma Bay and its image still hurts visitor arrivals, but at least the place is somewhat protected.

Now, only 2,000 tourists a day get to visit the beach.

These are classic examples of regulation after the fact. Thanks to the unique configuration of Hanauma and the terrible image problems, controls were possible. Still, tour operators were hurt and put out of business.

Molokini and Na Pali aren't so lucky. Thailand has the advantage of an early start, and the ability to learn from the mistakes of the West.

"Major emphasis is being places on the need for regional planning and the establishment of carrying capacities at heavily used ocean recreation sites. (8) These can be areas of exceptional scenic beauty that act as magnets and draw visitors from around the world. They also can be important engines that generate jobs and taxable revenues for the State and island economies." (9)

Dr. McDonald was hired by the State to find solutions to Hawai'i's ocean recreation mess. Over the past seven years, McDonald has accomplished miracles, yet Hawai'i's tourism, plagued by over development, still slumped. McDonald's words can be prophetic for Thailand.

“Inconsistency in management policies can result in eventual overuse of the resource base and that has become evident at certain key sites in HAWAII.

“When governments seek to foster ocean recreation industry development. Hawaii’s experience dictates that they focus attention as much on the management capacity of their institutions as on the condition of their natural resources or the identification of their target markets. It is especially desirable that ocean resource development policies and objectives be clearly defined at the outset and be incorporated comprehensively within the management framework that guides their implementation. Based on Hawaii’s experience, government should view institutional capacity to manage coastal resources for ocean recreation as a crucial element of economic development strategy.”

(10)

Let’s not let any more Pattaya’s, Pee Pee’s or James Bond Islands cheat Thailand of its future.

CAN PLANNING PROMOTE LOCAL OWNERSHIP?

At the bottom of all this is low-impact rural development, an ecological priority of the same importance as conservation.

Sea Canoe believes that true rural development must involve local ownership. Additionally, unless local people are franchised into the business, they have no economic motivation towards conservation.

Does this preclude absentee ownership by other nationals? Or Farang? This is a difficult issue to formalize, because like all groups of people, Ecotourism owners can be both good and bad.

Quite frequently, local people are most taken advantage of by their own Nationals. On the other hand, enlightened and aware absentee owners often come from “Big” Bangkok families. Farang owners can be truly sensitive and aware scientists who believe in developing a better Thailand - or they can be bar fly womanizers, here to take advantage of Thailand’s lack of regulations.

Local owners may be the worse environmental abusers, but the prevailing idea - one I helped develop - is that generally, local owners will generally be the ones who care the most about their own surroundings. (11)

Our practical experience in Phang Nga proves that we can’t generalize. We feel that Sea Canoe - Thai owned but Farang conceived - is environmentally responsible. We feel that our primary competitors, with one local owner and one Bangkok yuppie, are environmentally irresponsible. In our first ownership team, the Bangkok University educated self-professed environmentalist who was given his shares tried to screw over his local partners in an attempt to take over the entire company.

What happened then, and what is going on now in Phuket could never happen in rural Polynesia. If one villager got greedy and overran the

environment, one meeting of the village council would solve the problem - no legislation required.

The concept of legislating Ecotourism ownership is a difficult one. I want to see some provision that allows for local ownership with a blend of high quality Farang participation. In terms of business skills, environmental practices, product development and marketing, that Farang influence is vital to the success of Thailand's Long-Haul Ecotourism. Even in the domestic market, Farang naturalists can be an important factor in the development of scientific awareness and conservation practices.

When it comes to setting volume limits and permitting operations, each site presents a different situation. Although sea kayaking is a water activity, it is always the land that determines carrying capacities.

In the open seas with unrestricted beach access, multi-permits are quite viable when they incorporate credentialing and professional standards. The Andaman Sea and Koh Samui are ideal for this unrestricted volume, and I hope that one day tourists flock to Thailand to paddle this marine dreamland just as they now come here to SCUBA dive.

However, a word of caution. Unlike Polynesian sea caves, deep tidal sea caves are the ultimate in protected waters. True, they present their own unique and potentially fatal dangers, but once the highly predictable tides and currents are learned, tidal caves are almost "automatic" Class I waters. The Open Ocean factors of wind, surf and weather present the greatest dangers for sea kayakers. I worry much more about the coastal paddling safety matrix on the West side of Phuket or Koh Petra than I do in the deep caves of Koh Penak.

Many islands and estuaries are capable of multi-permits with large carrying capacities as long as operators are keenly aware of local knowledge.

Koh Petra off Trang has one of the world's most remarkable rock gardens lying at the base of its 300 meter cliffs. Two kilometers long, this playground can support two or three different companies. But it is also dangerous. Safe operators must not only be knowledgeable sea kayakers, they must be licensed for specific site knowledge, or there will be fatalities in the Koh Petra rock gardens.

The village of Talin in Krabi province is centered in some remarkable mangrove estuaries that also host limestone Karst. From a topographical standpoint, the area can absorb several sea kayaking groups a day (although the Krabi market cannot currently deliver that volume). However, the area is environmentally sensitive. The mangroves also offer some excellent natural history lessons.

The waters of Talin are protected, but still require basic sea kayaking skills. In addition to these credentials, operators should have some environmental education and conservation training.

The caves of Phang Nga Bay are an ideal example of severely restricted access. Long and narrow; only one boat at a time can get through certain "Windows of Opportunity". The caves are filled with fragile stalactites, and most Farang who visit the Hongs consider them sacred temples built by Mother Nature. Not only do the caves have a limited carrying capacity, but we and our guests believe that packing noisy groups into these sacred sites is no different from walking naked through a temple, or hanging an image of Buddha in the Hong Nam.

The biggest point our competitors don't get is that the primary economic value of the hongs is their serenity and exclusiveness. (12) By violating this principle, they are making short-term money. When their 80 customers a day return home after being attracted to Phuket by Sea Canoe's environmentally responsible promotions, they don't say good things about the hongs, or Thailand.

What bothers us from a business standpoint is that the "Eco-pirates" so thoroughly misrepresent themselves; many of their dissatisfied customers call us to complain, thinking they went with "The Original Sea Canoe".

Beyond the quality standpoint is a subtle marketing nuance. In a basic sense, tourism is a form of entertainment. Any Rock music promoter will tell you that you can't overexpose your artist, or they aren't sustainable in the market.

CITIZEN PARTICIPATION

Thailand has well intended master plans swimming out our ears. So what's the problem?

Enforcement is the key, but enforcement requires more than money. It requires the will to care; to speak up for what is right.

No government agency with any amount of money can adequately enforce an environmental policy on a national level - especially with the budgets these departments get. Khun Nopadol Briksvan, Director of the Marine National Parks, tells me the entire budget for all his Marine Parks is B145,000,000 per year. How can we expect Nopadol and his men to protect these treasures for under US\$6,000,000 (and dropping) per year? To expect an undermanned, underfinanced group to do a perfect job is unrealistic and unfair.

There is a way it can be done, with citizen participation, and commercial will.

In HAWAII, there is a Department of Land and Natural Resources Hotline. If a citizen sees a violation, a ranger is on-site within minutes. The State can't afford to monitor every environmental sector, so the citizens participate. Reaction time is so fast that when they were still legal, out-of-area jet skis

were often caught. Once, a fellow who speared a turtle and walked home with it was tracked by the hotline calls. He made the front pages.

This system works because Dr. McDonald's Planning model involves participation by the four sectors impacted by the planning process - academics, residents, business and government. (13)

It wasn't difficult getting three of the four groups motivated - professionals in business, academia and government all jumped into the planning process.

To his credit, Dr. McDonald spent the first year of the program holding community meetings specifically designed to enlist participation in the project. At first, people had to be pulled off the beaches and enticed into the meeting halls. A couple of years later, entire communities showed up to input into the final plans before they were submitted to the legislature.

Finally, because of that citizen involvement, entire communities - the community of HAWAII - got involved in enforcement.

Commercial Permitting & User Fees generated by the Master Plan literally paid for the administration and enforcement.

TERRESTRIAL CAVES

Before we discuss tidal sea caves, it is important not to forget the Kingdom's Dry Cave Resources, a completely different challenge. Traditional caves are often quite large, and can be even more fragile than sea caves. Because observers travel on foot, and often in large numbers, the possibilities of damage are even greater. Without the constant tidal "washings" minuscule factors such as body heat, lint and permanent lighting often adversely affect caves. (14)

Proper Dry Cave Management is as important as sea cave management, and it is urgently needed. Sea Canoe hosted a Canadian geology professor from the University of Irian Jaya over Christmas. Before his sea canoe trip, he went caving in the North, and reported to me that Farang are paying villagers as little as B50 to show them caves, when are then gutted of Thailand's archaeology, which is sold in the West.

This is hearsay. I don't even know where the caves are, but I do know that without proper management controls, the above claim is certainly likely. If it isn't happening today, it will tomorrow. It has happened before.

Most speleologists prefer to eliminate the "Show Cave" concept, but it exists and makes a lot of money. Private "Show Cave" admissions worldwide number about 30,000,000/year. There is considerable economic potential here, but since most scientists would rather not commercialize dry caves at all, serious management controls must be discussed, defined and implemented.

However, as with tidal caves, carrying capacity criteria are subjective. In US National Parks “during peak use periods many tourists are refused tickets to already oversized tours. The criteria used to determine tour size are maintain-ing the quality of the interpretative presentation and protecting the resource.

“However, there is no formula used in selecting tour size. “Management experience,” a “gut feeling”, and logistical factors are actually used in determining the number of participants on a given tour. The overriding factor seems to be the maximum number that two rangers feel they can monitor while simultaneously presenting the cave interpretive program.” (15)

I strongly suggest that either Thailand engages in a scientific study of dry cave potential for commercialization, and establish a management policy for their use including carrying capacities. The United States National Speleological Society is an excellent resource, and has already referred the names of prominent cave management experts who can help, one as close as Australia.

A DEVELOPMENT MODEL FOR THAILAND’S SEA KAYAKING INDUSTRY

From a topographical standpoint, the Andaman Sea is one of a dozen world class tropical sea kayaking destinations. What this destination has that others don’t is the culture and travel industry of Thailand, the centralized visitor plant of Phuket, and the Gulf of Phuket, whose protected Class One waters extending from Phuket to Phang Nga to Krabi hold over 300 beautiful limestone islands.

This area is technically easy and extremely forgiving. Outside the caves, the Gulf presents one of the safest paddling sites in the world. On about 30 days per year, sea conditions are dangerous for inexperienced kayakers. Even then, experienced kayakers in proper equipment might be uncomfortable, but will not be in danger unless they make serious judgment errors.

Don’t misunderstand. Any area is safe only if professional operators meet professional standards. In the Gulf of Phuket, rentals to experienced sea kayakers can even be offered during a nine-month season, but briefings on local conditions must still be required, with a clear understanding that certain caves cannot be entered.

Multiple permits operating outside caves can allow for about 500 kayakers per day in properly planned, diversified sites throughout the Bay. About half of these could be overnight paddlers, staying in remote bungalows or on privately owned improved beach campsites.

One of the most exciting rural development possibilities is the formalization of a “Sea Kayaking Trail” we have designed from Point Victoria next to Burma on down to Tarutao. Once proper planning is instituted, Sea Canoe will produce

a guidebook with maps, color photos and a natural history field guide to the Andaman coastline. Accommodation possibilities from Phuket Five Star resorts to remote island bungalows will be included. Although sea kayaking bookings may be insignificant for the Five Star properties, they may also be the lifeblood of the remote bungalows.

Independent Sea Kayakers are basically environmentalists, but as with a large group, there are exceptions. These may include both irresponsible folks and paddlers who simply don't know how to handle themselves in pristine sites. However, with the rare exception, all kayakers honor "Wilderness Provisions" that provide for either restricted entry or a Code of Conduct in Pristine Sites.

Commercial operators also have to be reckoned with. Unfortunately, the harsh reality in Thailand is the reverse of America. Management systems in America are targeted to control independent paddlers, the premise being that operators

will work to protect and preserved their sites, and have already gone through a tremendous credentialing exercise to operate in the first place.

In Thailand, independent paddlers will present insignificant problems. Greedy commercial operators out to exploit pristine sites are your primary concern. You can't develop a sea kayaking industry until this issue is solved.

Pristine sites in the South fall into two categories:

1. Wildlife habitats - These include but are not limited to honggs. Although our presence in Phang Nga protects the geology, we are totally unable to control the actions of our competition inside the honggs.

Outside honggs, we find langurs, macaques, raptors, sea otters and dugong that require protection.

2. Damage to tidal sea caves is obvious and permanent, so it isn't a great factor in Phang Nga. Our competition is at least smart enough to understand that they can't destroy the caves if they expect to continue to operate - at least as long as we are there to blow the whistle if they do.

But what about sea caves where Sea Canoe does not operate? An enforcement system that depends upon the good will one private operator isn't very effective.

A Government management model is required. This model should spawn a four-way participant planning process that leads to mutually agreed upon guidelines, and relies upon citizen-based enforcement with rapid government follow-up. And the system must be non-corrupt. This will present the biggest problem for implementation.

Such a system has two basic goals - safety and quality of a developing national industry; and environmental protection. Either time corruption is allowed to usurp these goals, Thailand suffers. After five years here, I believe that the only way such a system can remain intact is to place it in the fishbowl of public scrutiny. If Thai citizens develop the plan in the first place, they must also be taught that they are responsible for the oversight of its implementation.

Although they are being adopted in the Eastern Hemisphere, planning concepts are basically Western. Today I urge Thailand to develop your own version of the HAWAII State Marine Resources User Management Plan, but I recognize that it must be adapted to Thailand's culture - and only Thai's can do that.

There's a good opportunity coming up - the World Bank-Japan PHRD Thailand Proposed Coastal Resource Management Project.

Khun Nopadol showed this to me and it looks very comprehensive, similar in scope to the HAWAII plan. I was very encouraged to see the issue of shrimp farm sewage being addressed. I think it can be turned into a valuable "Shrimp Guano" by-product. But I didn't see much on tourism except for resort effluents; and I didn't see anything on Ecotourism, especially sea kayaking. I hope that's my oversight, or an early draft, but it's not too late to consider Ocean Recreation. (15)

I suggest that you consult with the culturally sensitive Dr. McDonald, but also engage in public dialogue on issues including "How does 'The Land of the Free' control economic activity?" Can exclusive rights be granted to private operators on public property, i.e., national parks? Regulatory precedents exist in other industries, but without well considered policy and enactment, forget Ecotourism development.

This issue is one of Thailand's biggest challenges. The fate of Ecotourism in Thailand, and the last remaining pristine sites in the Kingdom, depend upon the conclusions. Discussions may occur in a variety of arenas, including the Participatory Planning Process.

ECONOMIC DEVELOPMENT STRATEGIES

Public awareness of conservation and support for the planning process is vital for self-determination, planning and enforcement, and involvement of the domestic Ecotourist.

This requires a co-operative effort between academics and government. Khun Nopadol Briksvan was right on target when he asked me to draft a series of public affairs announcements for Channel 9 on the definition and benefits of Eco-tourism for Thailand. Were it not for this presentation, these spots would already be scripted and produced. Unfortunately, right after Khun

Nopadol made his request, this paper came along. Those scripts are now in their final stages and ready for submission.

Training and Credentialing must be stressed for three reasons.

First, Ecotourism must have a scientific base, or it is standard tourism. Ecotourism is educational. I'm not saying operators must be academics, or even have a university degree, but they must know what they are talking about or Thai Ecotourism will soon develop a "sleazy" reputation.

Second, any economic activity that involves public or environmental safety must be regulated, be it public transport, architectural design, petroleum refining and delivery, etc. Nobody would just buy an airplane and start an airline with no training or flight experience, yet many people seem quite willing to pick up a paddle, or inflate a white water raft, and start a business with no experience at all. This can only lead to disaster.

Credentialing also leads to quality. Quality may or may not be a matter of public safety or conservation, but it is certainly important in Ecotourism industry development. In this industry, quality sells. People don't want to be ripped off, but they aren't looking for bargains. Vacation time is valuable. Folks want to get the most out of it, and they don't mind paying for a professional guide, quality equipment, well organized time and decent food.

HAWAII found this out the hard way, and their ocean recreation quality was already pretty good compared to James Bond or Pee Pee tours. If Thailand wants to maintain its market position, I suggest that we adapt as our visitor demographics change, and they are changing worldwide "in ways which will necessitate shifts in market focus and which will have varied impact among the various ocean recreation industry sectors...Key attributes generally considered associated with these changes include:

- Greater personal discretionary income
- Reorientation of priorities from self to family
- Growing interest in cultural heritage and Eco-based tourism in new destinations
- and, *A larger international visitor segment that is increasingly more selective and value-oriented.* (16)

A word for the wise: For the moment, forget sea kayaking, forget Ecotourism - think quality. The days of the Kineau tourist are rapidly disappearing, at least in the international market. Even Asian markets are now shopping quality. If you don't believe me, just talk with any Thai tour operator who tries doing business with Japanese travel companies. (17)

If we expect to realize the dream of Thai Ecotourism, it must be properly promoted. If we start today and involve major promoters including Thai Air and the T.A.T., we are looking at a five year "Learning" phase before we see any meaningful numbers of Ecotourists, or Thai Ecotourism products. In the second five year phase, we will achieve noticeable results, i.e., in addition to industry-specific Economic Indicators, provinces may report increased

prosperity, Thai Air may have to buy some more Long Haul aircraft, habitats may be significantly rehabilitated and urban migration may decrease a bit.

Despite some built-in inefficiency, the T.A.T. Media Department does an excellent job of Public Relations. Of course, Sea Canoe is quite capable of marketing on our own, but it was a joy to work with the T.A.T. professionals as we developed a Sea Canoe media campaign that hosted dozens of TV crews and journalists last year.

By the way, Western journalists' universal reaction to the hongs is "Keep them the way they are. Don't increase you volume, and whatever you do, don't allow another operator in here. They are sure to screw it up." All these folks asked me as a fellow journalist to alert them if a copycat ever developed.

I violate my professional responsibility to these journalists to avoid the adverse publicity for Thailand, so I sincerely hope this TEI opportunity works. I would rather have something good to report to the international media than a negative conclusion.

FILM INDUSTRY PROMOTIONS

We've all seen Hawaii 5-0 and Magnum P.I. With only a one year gap, these two shows highlighted HAWAI'I on US national TV for 25 years. As soon as Magnum stopped, visitor counts dropped. (Of course, there were other important factors as well.)

There is no doubt that the EMMY award winning "Moloka'i's Forgotten Frontier" helped catapult Hawaii sea kayaking into the multi-million dollar industry it is today.

Phuket has hosted several films, but since they were not set in Phuket, the promotional value for Thailand was diminished. Credit mentions just don't replace identifiable locations.

I hope the market has graduated beyond the "Soaps" stage, and it would be nice to see Thailand develop into an exporter of Nature documentaries. With satellites, there are enough programming options that Nature documentaries shouldn't have to depend upon National Geographic or the BBC for production and placement. Perhaps Eddy Chitichanga of the Thailand Film Office can help develop - and place - some world class Thai productions.

INDUSTRY PROMOTIONS

Sea Canoe will do our best to help create Ecotourism industry promotions. We will start by contributing the concepts for two high profile, very cost effective sea kayaking promotions. Both concepts are set on the spectacularly beautiful waters of South Thailand, designed to highlight the general beauty of the area on satellite video. However, they only work if we can obtain government and travel industry sponsorship and co-operation.

OUTRIGGERS AND SURF SKIS

First, let's recreate the Moloka'i-to-O'ahu Outrigger Canoe and Surf Ski Kayak races - from Phuket to Krabi. Anybody who has seen HAWAII 5-0 knows the importance of outrigger canoes to the promotion of HAWAII. Now that

Outriggers are an Olympic sport, they belong to the world and the Outrigger Associations want to promote their sport. Why not show off Thailand's natural beauty, and bring video crews to Phuket for a Two-in-One production along with the King's Cup Yacht Race? The way to attract producers to the King's Cup is to give them a second production for their effort.

The surf skis may be more impressive than the outriggers. Whereas nine men rotate six paddle seats in the outriggers and traverse Molokai to O'ahu in just over five hours, the long skinny surf skis are piloted by individual paddlers, and cover the same distance in three hours plus.

The costs? It takes about B50,000 to ship a container from HAWAII with both the Outriggers and the Surf Skis. Hotels and airlines have to come in with some comps, but the week before the King's Cup is ultimate low season. Thai Air's wedding partner in HAWAII is now United Airlines, who literally built HAWAII into a modern-day destination. The timing is right for them to think about promoting Thailand.

Like the Ididerod dog sled race, the second concept is made for "The Wide World of Sports". I propose a sea kayaking touring race from Point Victoria on the Burma border to Tarutao, next to Malaysia. Competitors can paddle the craft of their choice, but must pack their own camping gear and provisions (except for fresh water).

The two-to-three week "Made for TV" event shows off not only sea kayaking opportunities in Thailand, but the Andaman coastline as well. The cost is insignificant, limited to the kayak shipping costs, food and supplies, and race monitoring. In early years, the race will probably involve no more than a dozen competitors, and they should probably be sponsored with airfare and hotel rooms. As it grows, the event can develop marathon proportions, with scores or hundreds of competitors, most paying their own expenses.

These ideas are sounding boards. I'm sure that creative brainstorming will come up with other, perhaps better, national level promotions.

However, these events only prime the pump. The best way to develop a consistent and sustainable Thai Ecotourism is that old standby "Word of Mouth". Substance, quality and management integrity are the only truly effective Public Relations efforts.

Word-of-Mouth is still the best form of advertising and only one thing drives it - a quality experience. Folks talk about their vacation when they get home. If the quality of their quality time doesn't measure up to expectations, they will

“Bad Mouth” Thailand. If the quality exceeds their already high expectations, everybody wins. Our overnight sector is built upon an 80% repeat business, and we have several repeat customers who organize their own groups with friends from back home.

CAPITALIZATION

A Thai environmentalist recently told us that if we are sincere, Sea Canoe should just give the villagers their kayaks and let them find their own way, Thai style. Obviously, this fellow has never been in business for himself.

Sea Canoe wouldn't be around very long if we were in the business of giving away kayaks. There wouldn't be many sea kayaking companies around either.

This form of give away would be cruel. It would be like giving me a 747. How do I find and qualify a crew? Pay for the petrol? Obtain my landing permits, access a reservations system, do proper marketing, etc? Were I the proud owner of a 747, my best option would be to lease it to somebody who knows what they are doing. What are the villagers' options?

Sea Canoe can give kayaks to a new business, but we have to take shares in that business if we do, or I couldn't afford to be here today. That may be a good solution for a normal business intent upon growth, but we are in the business of creating local owners. The more shares Sea Canoe holds, the less are available to villagers.

Our earlier bad experiences with shareholder “Giveaways” demonstrate that the local ownership concept can be maximized by obtaining development loans - not grants - for these new companies. That way, local shareholders feel a responsibility for the equity they earn, albeit out of cash flow. They can organize a proper business, along with training and professional standards, and they can be taught business skills by their bankers, government development officer, TBIRD and if necessary, Sea Canoe.

Remember, we selected sea kayaking for the development model because it doesn't require infrastructure or large capitalization. The total costs for a mid-sized sea kayaking center are between B2-2.5 million. If marketing is successful enough to develop consistent 75% occupancy, a low-interest loan can be repaid in about two years. Seasonal operations might take three to four years.

These “investments” may seem insignificant by traditional development standards, but what is most important - the actual monies invested in an enterprise, or the cash flow and jobs that endeavor creates?

Within four very rough years of development (including the Gulf War, Suchinda revolution and my work permit bust), Sea Canoe's “investment” of seven ragged boats and B5,000 in the red benefits 60 Thai staff with a monthly payroll of B500,000. Each month we pump B2.5-3 million into

Phuket's economy, yet we have never paid a shareholders' dividend. Most important, on an international level, Sea Canoe serves as a "Draw" for Phuket for a significant number of visitors. On a domestic level, we constantly promote environmental awareness and the management principles of running an ethical and responsible Ecotourism company.

MAINTAINING THE MOMENTUM

Obviously, the TEI has given sea caves, sea kayaking and Ecotourism planning an important boost today. How do we maintain this momentum, and avoid the dusty shelves that harbor so many other excellent planning documents?

The answer is before me.

Strong leadership sets the way. Clear-thinking minds will set a plan for the plan, and stick to it. Sea Canoe will not forget this effort. You are the core of citizen participation, but we have to promote and broaden that citizen participation. We have to convince Thai people to become involved in their own environments, and to speak up for what they want, and to blow the whistle when something goes wrong.

When people either don't seem interested, or are doing all the wrong things, we must persevere. We must think of the spin-off benefits of the planning process and the Ecotourism industry, so at the same time our hands are full of planning documents we must also encourage democracy, self-determination and science education. We must remain free of corruption and influence.

The Media has to get involved. Editors have to see the Ecotourism development and self-determination angles as a new path for Thailand that cannot be forgotten. Cartoon and editorial page space should be reserved for basic nature education, not only species descriptions, but how people should conduct themselves in Nature.

Do it not for sea kayaking or Ecotourism, but to increase scientific awareness throughout Thai society.

Along the way, Sea Canoe is videotaping every step-by-step process, including today's mindless babble, praying for a satisfactory outcome so we can produce a documentary for the Pacific Asia Travel Association on how successfully Thailand planned for Ecotourism, actually involving its own citizens in the planning and development process. (18)

The PR from this project can be enormous, not only for Thailand's travel industry, but the Kingdom at large.

SEA KAYAKING ASSOCIATION OF THAILAND

In Phuket, Sea Canoe has joined with Santana Diving and Canoeing to form SKAT, The Sea Kayaking Association of Thailand. SKAT is dedicated to

environmental conservation and international standard professional credentialing. Our standards conform to all professional and national sea kayaking credentialing bodies, and we hope that this effort serves as the forerunner of a Thailand Canoe Association, a possible member of the Olympic-movement International Canoe Federation.

Our purpose is to protect Thailand's marine environment, and promote the Kingdom as a world-class sea kayaking destination that presents a safe, clean and educational family destination. I won't be happy until the sea kayaking industry at least equals the numbers of SCUBA, and market pressures convince Jet Ski operators that both they and Thailand are better off renting sea kayaks.

Best of all, SKAT isn't a one voice in the wilderness program. We hope to stimulate the growth of Thai sea kayaking, and hope all operators will join with us and conduct their businesses by our credentialing, ethical and environmental guidelines.

NATIONWIDE ECOTOURISM ASSOCIATION?

We also hope this leads to a T.A.T. sponsored Thai Ecotourism Association free of racism and conflict-of-interest ownership. There's one great reason I'm in sea kayaking Ecotourism - it is friendly competition. True Ecotourism operators engage in their efforts to build a better planet and educate people, not get rich. Sea kayakers are an instantly friendly fraternity.

There is no room for racism, dirty tricks or greed in any nation's Ecotourism industry. The only way we can succeed in Thailand is by building a bond of friendship and respect between all responsible operators - Thai and Farang alike.

When we all accept international standards and professional ethics, we can work together instead of fighting each other, and Thailand will be the biggest winner.

- (1) The Nation, Thursday, June 9, 1994 P. A-8 "Asia 'key to planet's environmental salvation', [see appendix]
- (2) P. 5 - Sea Canoe Expedition logbooks, 1990.
- (3) P. 6 - "Summary of Proceedings", South East Asian Seminar on the Management of Coastal Cities and Towns, 8-10 August, 1994, Pattaya, Thailand.
- (4) Sea Kayaker 1994 Readership Survey; Paddler magazine 1994 readership survey; Canoe & Kayak magazine 1994 readership survey.
- (5) "The Economic Potential of Hawai'i's Ocean Industries", p. 3. Craig D. McDonald, Ph.D. & Howard E. Deese, State of HAWAII Dept. of Business, Economic Development and Tourism. In Marine Technology Society Proceedings, Sept. 7-9, 1994, Washington, D.C.
- (6) "Issues and Analysis: Managing Ocean resources for tourism Development in HAWAII", p. 1. Craig D. McDonald, Ph.D. and Elizabeth Corbin, State of HAWAII Dept. of Business, Economic Development and Tourism. In OCEANS '89 Proceedings, 14th annual Ocean Conference, Sept. 18-21, 1989, Seattle, Washington. Volume 1, pp. 123-129, Marine Technological Society and IEEE, Washington, D.C.
- (7) "Hawai'i's Ocean Recreation Industry: A Model for Regional Development in China", P. 3-4. Craig D. McDonald and Athline M. Clark, State of HAWAII Dept. of Business, Economic Development and Tourism. First Intl. Ocean Recreation Activity and Resort Development Symposium, June 20-23, 1993. Haiing Island, Yangjiang City, China.
- (8) HAWAII Ocean Resources Management Plan, 1991. HAWAII Ocean and Marine Resources Council.
- (9) "Hawai'i's Ocean Recreation Industry: A Model for Regional Development in China", P. 3-4. Craig D. McDonald and Athline M. Clark, State of HAWAII Dept. of Business, Economic Development and Tourism. First Intl. Ocean Recreation Activity and Resort Development Symposium, June 20-23, 1993. Haiing Island, Yangjiang City, China.
- (10) *ibid.*
- (11) "Sink or Swim With Product Integrity" John C. Gray. PATA Adventure Travel Conference, Calcutta, India. March 29, 1991
- (12) Sea Canoe logs, March 1990. See appendix item #2, "Chief Sealth".
- (13) "Issues and Analysis: Managing Ocean resources for Tourism Development in HAWAII", p. 3. Craig D. McDonald, Ph.D. and Elizabeth Corbin, State of HAWAII Dept. of Business, Economic Development and Tourism. In OCEANS '89 Proceedings, 14th annual Ocean Conference, Sept. 18-21, 1989, Seattle, Washington. Volume 1, pp. 123-129, Marine Technological Society and IEEE, Washington, D.C.
- (14) "Effects of Tourism Development on Caves and Karst", P. 15. G. Huppert, E. Burri, P. Forti and A. Cigna. Cave Conservationist
- (15) "Proposed Coastal Resource Management Project" World Bank-Japan PHRD
- (16) "Hawai'i's Ocean Recreation Industry: A Model for Regional Development in China", P. 3-4. Craig D. McDonald and Athline M. Clark, State of HAWAII Dept. of Business, Economic Development and Tourism.

First Intl. Ocean Recreation Activity and Resort Development Symposium,
June 20-23, 1993. Haiing Island, Yangjiang City, China.
(17) Shoji Ogiu, Planning Chief, Japan Travel Bureau, at PATA Ecotourism
Conference, Balikpapan, Kalimantan, Indonesia, Jan. 17, 1995.
(18) PATA Fax transmission, 3 Feb. 95. Renton de Alewis, PATA Vice-
president, Asia.

APPENDIX
Item #1

THE NATION, A-8, Thursday, June 9, 1994

Asia 'key to planet's environmental salvation'

Reuter, MANILA - The battle to save the planet from environmental destruction will be won or lost in Asia, a top conservationist has told a conference on biodiversity conservation in Manila.

"Asia has become the primary engine of world growth," said Maurice Strong, secretary-general of the 1992 Earth Summit in Rio de Janeiro. "But there is a real danger that many Asian nations will repeat the patterns of environmental destruction which characterized [the West's] industrial revolution."

This, he said, would be "patently disastrous".

There is little hope of a global shift towards development that pays attention to environmental concerns unless Asia does so.

"But any visitor to [the Asia-Pacific region] today could not help but be concerned at the lack of any great evidence on the ground of this increasing awareness and commitment at the policy level," Strong said.

"It would be no exaggeration to say that the battle to save our planet - will be won or lost in Asia," he said.

Strong, currently chairman of the Earth Council set up after the Rio summit, was speaking during a three-day Asia Pacific Conference on Biodiversity Conservation at the Asian Development Bank headquarters in Manila. He said there was little evidence, at least at the level of governments, of any major changes since the Rio conference.

The fundamental shift in attitudes necessary to stop the world from dying has not taken place, he said. "Fundamental change does not come quickly or easily," he said, adding that there were still grounds for hope. However, he added that more progress has been made outside government circles.

"There has been less progress than we wanted from governments, but more than we expected from citizens," he said.

APPENDIX
Item #2

American Indian Chief Sealath, 1865:

"How can you buy or sell the Sky - The Warmth of the Land? The idea is strange to us. We do not own the freshness of the air or the sparkle of the water. How can you buy them from us? We know that the White Man does not understand our way. One portion of the Land is the same to him as the next, for he is a stranger who comes in the night and takes from the Land whatever he needs. The Earth is not his brother, but his enemy, and when he has conquered it, he moves on. He leaves his Fathers' graves, and his children's birthright is forgotten...

"There is no quiet place in the White Man's cities. No place to hear the leaves of spring or the rustle of insects' wings. But perhaps because I am a savage and do not understand, the clatter only seems to insult the ears. And what is there to life if a man cannot hear the lovely cry of a whippoorwill or the arguments of frogs around a pond at night? The Indian prefers the soft sound of the wind darting over the face of the pond, and the smell of the wind itself cleaned by a mid-day rain, or scented with a pinon pine.

The air is precious to the Red Man. For all things share the same breath - the beasts, the trees, the Man. The White Man does not seem to notice the air he breathes. Like a man dying for many days, he is numb to the stench,

When the Red Man has vanished from the Earth, and the memory is only the shadow of a cloud moving across the Prairie, these shores and forests will still hold the spirits of my people, for they love this Earth as the newborn loves its mother's heartbeat. One thing we know - Our God is the same. This Earth is precious to Him. Even the White Man cannot be exempt from the common destiny."