INTRODUCTION

The term, "ecotourism" has exploded in the travel literature in only the last decade—a new linkage between ecology and tourism. It implies that business and nature-oriented travel have something in common. I have been asked to share some of my experience with you regarding the planning and design of facilities and services that can protect resource assets at the same time businesses can be successful. This is a big order but there is no better example than our present location—Maho Bay Camps.

Even though the word ecotourism has surfaced only recently, the concept of this kind of travel has ancient roots. Prehistoric artifacts such as petroglyphs, pottery, and language characters, prove that there were strong ties among early living, travel and the natural world. Although much of the reason for this relationship was for subsistence in those early days, these artifacts also show a great amount of spiritual interest and respect for beauty in nature. For example, in France, carbon dating of beautiful cave paintings of animals revealed that they were made some 30,000 years ago. Even prehistoric civilizations had a love of nature.

In more recent years, historic mankind also lived close to nature but at first developed great fear of natural forces, such as wild animals, forests, and floods. For centuries, the hate-nature theme dominated peoples throughout the world. But, in order to grow crops and provide fuel for heating comfort, forests were cut. Then, in the industrial revolution, natural resources were seen as necessary for exploitation. The theme was to subdue nature and make it work for mankind. Even today, this remains a dominant philosophy of many people who see petroleum, coal, forests,
and waters as just sitting there—waiting to be turned into productive use.

But, just a few centuries ago, a great revival of nature appreciation took place, stimulated primarily by artists and poets. A writer in 1612 stated, "Landscape painting and travel and gardening developed together as the art of vision, for discovering the genius of place." I cannot think of a better theme for our work here today—helping visitors discover the great natural assets of special places. These assets are not just physical; they contain meaning for all who are exposed to them. It was the English poet, William Wordsworth, who expressed it this way:

One impulse from a vernal wood
May teach you more of man,
Of mortal evil and of good,
Than all the sages can.

In the mid-1800s, American literature was focused on nature. William Bartram, Washington Irving, William Cullen Bryant, Ralph Waldo Emerson, Henry Thoreau, and John Greenleaf Whittier extolled the virtues of their natural environments. This genre was augmented further by painters, such as Thomas Cole and others of the Hudson River School of artists. Many say that this was the beginning of the concept of scenery.

Then, in the late 1800s, especially with the establishment of Yellowstone National Park in 1872, the concept of conservation and national parks sparked a major environmental movement throughout the world. This is the very foundation for what we call ecotourism today—the dual mandate of resource protection and public use.

Today there is ample evidence that travel interest in nature has reached an all-time high, and keeps on growing. The World Tourism Organization reports that
nature tourism is the fastest growing segment of tourism today, averaging a 30 percent increase each year since 1987. Worldwide, nature tourism sales were approximately $238 billion in 1994. In the United States, our Forest Service forecasts the following growth in nature-based recreation through the year 2000:

- Backpacking up 34%
- Day hiking up 31%
- Bicycling up 25%
- Outdoor photography up 23%
- Wildlife watching up 16%
- Camping up 16%
- Canoeing/kayaking up 13%
- Rafting/tubing up 11%

If you seek further proof of the nature interest markets in the United States, the Forest Service report of 1994 indicates the following volumes of participants in the top ten outdoor recreation activities:

- Wildlife viewing 76.5 million
- Fitness walking 69.6
- Camping 47.1
- Fishing 35.6
- Hiking 22.7
- Hunting 14.1
- Canoeing/kayaking/rafting 14.0
- Backpacking 10.4
- Mountain biking 5.0
- Rock climbing, mountaineering 4.1

In Texas, it was reported that in 1993, an estimated $3.6 billion was spent on fishing, hunting, and wildlife associated recreation. Texas has been the most popular bird-watching state in the last five years. In 1992, bird-watchers generated an estimated $4 to 6 million economic impact along the Upper Texas Gulf Coast.
There is no doubt about the market for ecotravel but how does this translate into the development of services and facilities? Certainly, our mission is to create settings for rich visitor experiences. But, we must remind ourselves that services and facilities are only a necessary evil—not the reason visitors come. Our objective therefore is not to contrive Disney-like attractions but rather to help visitors enjoy the natural and cultural resources that are already there.

We mustn't forget the linkage between nature and culture. The natural resources were instrumental in shaping the cultural development of the world. And what the many peoples of the earth have done on, with, and to their land is of great interest to visitors. And so, as planners and developers of ecolodges, we must be as aware of cultural as of natural resources when we plan and design.

Before you get excited about designing ecolodges, there are a few important and related items of you need to be made aware. In my work with individual tourist businesses, I have found several points to be as critical to success as the internal operational factors. My major mission today is certainly to help you to succeed as designers and developers.

And so this forenoon I want to bring to your attention just six well-known and even pedestrian points that demand attention.

1. Key environmental obstacles that must be confronted
2. Design and development challenges for ecotourism
3. The ecodge must fit into the overall tourism system
4. How to discover potential development zones in a region
5. How to select an ecodge site
6. Desirable steps in designing ecotourism sites
UNIT 1. ENVIRONMENTAL OBSTACLES

Unfortunately for new ecotourism developers today, we face a badly abused environment. Although to some degree the major issues are beyond the control of ecolodge designers and developers, you cannot escape them and must understand they exist. Furthermore, you should strive toward improving the situation in every design and development you make. Here are some of these critical environmental issues that must be considered in all new ecotourism development.

Environmental Degradation is Running Rampant

Natural and cultural resources, the very foundation for ecotourism, are being eroded as never before. Especially damaging is water pollution because clean water is so essential to all the attractions of interest to the ecotourism markets. Throughout the world, there is ample evidence of this problem. For example, more than 2.5 billion gallons of untreated waste is flushed into Narragansett Bay, Rhode Island, every year (Brancatelli 1994). In 1994, volunteers for the Center for Marine Conservation collected seven million items of trash and a ton of debris for every mile of the Texas Gulf Coast. It was reported that $2.5 million a day of tourist revenues were being lost in the area because arsenic, grease, and other toxic wastes were flowing into Galveston Bay. And, this is a worldwide problem, not just American. I know of many locations where untreated sewage from resort hotels is running directly into the very waters to be used for swimming and fishing. Equally significant is other resource degradation, such as depletion of vegetation, wildlife habitat, and soils—all important for wildlife viewing, photography, and nature study.
Before ecolodge and ecotourism development are contemplated, local resource conditions must be reviewed to discover how serious the problems may be and if they can be remedied.

**Disunited Development is Chaotic**

Any new developer is caught up in a trend that is causing a great amount of chaos and disunited tourism development. Each one tends to look only to the immediate site, not realizing that tourism is a system made up of many parts, many of which are created by others. This lack of integration creates a confusing and often ugly juxtaposition of land uses. This situation results in less than optimal business success, poor visitor satisfaction, conflict with existing community values, and environmental damage. Neither the public nor the private sector seems to be concerned about the overall result. Only when the issue becomes critical, such as gridlock traffic congestion, disturbance to wildlife, or even killing endangered species, is action taken. When ecolodge sites are selected, it is essential to consider these conditions.

**Tourism Design is Becoming Homogenized**

All designers of new ecotourism facilities must fight against the trend for mass tourism's look-alike designs. Business developers tend to copy others that have appeared to be successful. Franchise and chain firms tend to repeat the same land use and building design in all locations and geographic regions. In the great desire to standardize offerings to market segments, the visual landscape is beginning to look the same everywhere. The traveler today is less and less aware that he has left home. Although some tourism designs do capitalize on vernacular themes, we
have been guilty of much repetition.

**Place Qualities are Being Destroyed**

Closely related to homogenized development is the destruction of place qualities. Hills are bulldozed flat, native vegetation is destroyed, significant vistas are blocked, historic places are destroyed by gambling casinos, vernacular architecture is replaced by international glass-box style, prehistoric sites are buried under golf courses and resorts, and the subtle qualities of community traditions are often obliterated. Place qualities, the very essence of ecotourism pulling power, are unwittingly being decimated, and how much are we doing to prevent it?

**Lack of Land Use Policies—The Major Issue**

Most of the ills I have just described are not the result of overt decisions by evil people. They have resulted from myopic vision of development and the lack of land use and design policies. Everyone must understand that some degree of control is not necessarily restrictive but really the opposite—encouraging the right development in the right place. The responsibility for the needed action generally is aborted by major tourism agencies and falls upon the shoulders of designers and developers. Unfortunately today, individual investors continue to create poor tourism development that is not only bad conservation but also bad economics.

These and many other environmental issues are real and must be considered whenever new ecotourism development is considered.
UNIT 2. DESIGN-ENTREPRENEURIAL CHALLENGES

No one intentionally wants to do a poor job and I am sure no one here does. First let me emphasize the title of this unit--"Design-Entrepreneurial Challenges." Solutions to our many ecotourism design and development issues cannot be solved by designers alone nor developers alone--it demands joint action.

In this unit, I want to emphasize just 7 points. I hope they will be useful to you.

(1) **We need to understand the "real clients"—the visitors.**

Traditionally, the private practice of architecture and landscape architecture involves a designer-client relationship. a client comes to a design office with a proposal. The designer says "yes, I can design this for you; what do you want." With all respect to developers and designers, neither one very often has a clear picture of what will work best for visitors. Each one may have some ideas but too often they are based only on their own limited experience, not research of the visitors.

And so, my first point is to recognize that today, we can help ourselves greatly by learning more about that special travel market we are interested in--the ecotourists. Who are they and what do they want? Neither designers nor developers are experts in this area so where do we turn for help?

My first suggestion is to contact your state, provincial or national tourist agency. Ask them if they can give your results of their ecotourism market surveys. For your area, what are the most popular origins of tourists--what countries or states do they come from. Better yet, what specific activities do they seek within the
realm of nature and culture tourism? Today, more offices are doing this kind of research and can help you. (illustrate?)

Second, tap your local library. Take time to look up the travel research journals. Here are some of these that contain a great amount of information and today more studies on ecotourism are appearing.

Ideally, because you cannot quickly become an ecotourism market expert, you should get help from one. Travel market researchers need not require a huge investment. Today short-term market consultants are available even for small projects. In the United States, many universities have staff members that do more than teaching—they also have public service responsibilities. Many states now have tourism extension specialists as part of the Cooperative Extension Service who can give you technical assistance, and it free. Much of new ecotourism development will take place on National Park property, just as here at Maho Bay. The Park Service has performed research studies that can be extremely helpful.

Again, I emphasize the "real" clients of designers of ecolodges are not just the owners but those who will be coming as visitors. Every bit of development must work for them as well as for those of you who are investing.

(2) We need to practice new public involvement.

No longer can you dream up your development and plunk it down in some area without checking in with the local people. Our governmental agencies used to do this but no longer. Today, all tourism developers, public and private, are learning you just can't do things this way. Throughout the world, the voices of local constituency groups are being heard.

Not long ago I was involved in a tourism development task force on a South
Pacific Island. One issue was a proposal for a huge resort development with golf course to be located on the only remaining wildland valley. Its development would have destroyed several Polynesian prehistoric sites, removed native agricultural activity, and polluted the beautiful crystal clear bay. Following our recommendation, the local people voted to prohibit this development. However, if properly designed, a small, low-key ecolodge project would have been accepted.

The Disney Corporation proposed a new theme park near Gettysburg National Military Park in Pennsylvania. However, the local people did not believe this was compatible with the sanctity and significance of the national Park and prevented Disney from building it.

Right in my own community, Hilton's first choice of land for a hotel was refused by the local residents—the NIMBY syndrome (Not in MY Back Yard).

Another interesting example is local resident action alongside one of our major natural tourism attractions, the Blue Ridge Parkway—a 470-mile scenic highway in eastern United States, visited by over 20 million people a year. The citizens of local communities are raising considerable objection to the threats of new condominiums and other housing projects that will damage scenic viewsheds, old structures, historic mills, farmsteads, and native stone and wood fences.

Let me emphasize that not all local residents are against tourism development as much as where it takes place and how it is done. In most instances they are pleased with new economic improvement but increasingly wish to protect their way of life and basic resources.

There is a right way and a wrong way to develop. The wrong way is to antagonize local citizenry and polarize opinions at the start. The right way is to involve them right from the beginning. They have a right to influence what takes
place in their communities.

Several techniques of citizen involvement have proven to be useful. Certainly all proposals need to be brought before local authorities even though their legal approval may not be necessary. The local tourism agencies should hear about your proposals in order to give you their assistance. Often it is appropriate to hold public meetings describing details of the project and especially the depth to which developers have considered potential negative impacts and measures to be taken to avoid them. Media releases can provide educational information for better local understanding. The Western Australian Tourism Commission recommends that as the project progresses, monitoring and reporting to the public should take place. I recall a very astute public involvement process in the restoration of an historic fort in northern Michigan. As the archeological digs were taking place, the visiting public was allowed to watch through plexiglass windows in a covered walkway. Also in this walkway panels depicted the costumes and actions of the British, French, and Indians at this site in the early 1600s. All this was a year before the fort was restored and open to the public. As a consequence it was easy for the developers to float a three-million dollar bond issue for the reconstruction and the local public as well as visitors were kept informed of progress.

Let me emphasize a caution to outside design and development consultants. When working in another country, American consultants for example, may not understand the local culture and impose inappropriate designs. In an IFLA congress recently, designers Dimanlig and Hilario made this observation:

Attempts at change are often resisted, particularly where planning approaches and values differ widely from those of the intended beneficiaries and are imposed without the benefit of an acculturation process.
Landscape architect Safei Hamed described this same problem in Saudi Arabia:

In the case of Asir National Park, the cultural gap between the American designer and the typical Sudi user was manifested in many instances and has caused problems to users and managers. These include such issues as insensitivity toward the separation of the sexes, the inappropriateness of Western style bathrooms and the inadequacy of typical American picnic tables for the Bedouin style of eating.

In some work I did with the national parks in Venezuela, I couldn't understand why all the fixed picnic tables were square and not oblong for typical family use. I soon learned that these were not picnic tables--they were for the major Venezuelan recreation--dominoes! even in national parks.

(3). Designers must look beyond the site.

Landscape architecture is often called site design. This implies consideration only of the immediate property conditions. For tourism, this is not enough.

Most likely, the real ecotourism experience will take place on land outside the proposed ecolodge site, such as within a national park. Therefore, an essential part of the site design is to understand the relationship between and how the lodge ties in with the park. A first step is to contact the park administrators to discover all policies on visitor use. Where can the public (your guests) go and what activities can they engage in? Today, ecotours are becoming very popular. But, the operation of such tours must comply with regulations and may include payment of fees. This requirement should not be seen as a penalty for doing business but rather as support for the very features that attract visitors in the first place.

Let me again refer to the South Pacific island I mentioned before. Our task
force saw that each hotel site had been designed, built, and managed with interest solely on the hotel site. The beautiful mountain nearby, the unusual wildlife, and the rare and interesting archeological sites were ignored. The hotels were losing money because of this narrow focus and they were not attracting their most logical market—ecotourists. The designers and developers missed their greatest opportunities right nearby for rich and interesting activities for the hotel guests. There was no interpretive center, no opportunity to hike in the mountain, no chance to photograph the unusual wildlife, no opportunity to enjoy traditional dance, costumes, lore, legends, drafts, and foods.

And so, the point is for each ecotourism designer and developer to investigate many factors beyond the site, such as access, adjacent land use, negative environmental trends, and opportunities for linkage with nearby assets. Everyone is bound to gain—visitors will be better satisfied, business will be more successful, and resource use can be controlled for long-range protection.

(4.) Designers must take a stronger proactive environmental role.

Too often, developers of ecotourism businesses are painted as evil destroyers of environmental assets. And, we must admit that some have earned this reputation.

It is not enough to focus attention only on an ecolodge. All of ecotourism depends on clean water, scenic vegetation, wonders of nature, wildlife and their habitat, dramatic topographic change, freedom from erosion, beautiful forests, prehistoric and historic sites, and rich cultural landscapes.

While designers may not see local activism as their role, I argue that they cannot avoid it. This is not environmental extremism or emotionalism—this is sound ecotourism economics. At the last annual conference of ASLA, landscape architect
Kathy Poole introduced what she called the concept of "ecology as content," a deeper understanding of each site's natural dynamic forces and stronger resource protection.

(5.) **As designers, we benefit by considering three scales—macro to micro.**

Later on I will go into greater detail on this topic but let me introduce the concept here.

All who are considering ecolodge sites can benefit if your regional leaders of tourism had performed a large scale survey of opportunities. Let me explain. Recently I was approached by a South American country to perform a project to stimulate investment in tourism. When we began to set up the terms of reference I asked a few questions that I thought were essential. I asked if there had been a nationwide examination of important factors so that they could tell investors what and where new investment was needed. For example, what potential destinations within the country had the resource foundations for ecotourism, one of their objectives? Which area now had access by water, air, or land? What local communities are able to provide basic infrastructure? They admitted that they had not considered all these questions. They had taken a very naive approach and thought by some super salesmanship they could entice investors. The project apart.

The foundation for my emphasis on the **regional** scale is the geographic fact that not all places have equal potential. There are some very real geographic differences that must be recognized for viable tourism development. Too often tourism promoters make the statement that tourism can be developed everywhere. Don't you believe it. Later on I'll tell you about a computer graphic system I have used for several state plans for tourism.
Another important scale is what I call the destination—an area surrounding a community. Why the emphasis on a community, especially for ecolodges? From a tourism perspective, communities provide several important functions for all tourism including ecotourism. All travel modes bring visitors first to communities—roads, airways, waterways. Communities provide basic infrastructure—water supply, waste disposal, police, fire protection, power. Many compatible attractions are found in communities. Communities offer many services to travelers such as travel reservation, food services, lodging, money exchange, and medical service. So, even though ecolodges and many natural resource attractions may be in rural areas, they are connected to communities. Therefore all planning and design of ecotourism must include close collaboration with the nearest service community or communities. Of course, our principle concern here today is at the site scale. Perhaps we can now understand how even site scale design will benefit from analysis and planning at the two larger scales—the destination and the region.

6. Designers can be important catalysts to resolve issues.

Often today, developers and environmentalists are so emotionally heated that all arguments become polarized—projects are heated and great amounts of money are expended on fighting each other.

Fortunately today, we have a better solution. A neutral source, often designers, can intervene to take the heat out of arguments and develop an agreeable solution. It doesn't always work but it sure is worthy trying.

Let me describe an interesting case. For twenty years, an 11-mile stretch of Interstate Highway 93 in New Hampshire was halted because of disagreement between a White Mountain Environmental Committee and the New Hampshire
Department of Public Works and Highways. At issue was the potential damage that typical Interstate standards would do to the traditional landmark—the rock profile known as the Old Man of the Mountain. To make a long story short, several years of intervention by planning and design teams began to result in compromise solutions. A breakthrough came in 1973 with a congressional amendment to the Federal Highway Act providing for special parkway standards in this 11-mile piece of the Interstate, known as the Franconia Notch.

Today, environmentalists and highway officials are generally satisfied with the solution—no median between highway ribbons, just a granite rumble strip; narrower shoulders; a reduced speed limit; dark colored surfacing to blend with surroundings; and special naturalistic landscape treatment of roadsides. Tourists still can enjoy the mountain scenery as traffic flows are handled. It is a lesson in resolving conflict that protects environmental assets at the same time tourism objectives are met. The principle demonstrated here is equally applicable to smaller scale.

7. All site design demands new creativity.

By now this point should be obvious. The major way to avoid destruction of place qualities and sameness of development is to exercise new design creativity. Too often developers and bankers would rather copy business designs that have shown success. They make the simple conclusion that everything must be copied whereas other aspects of the project may be more worthy of replicating. The provision of guest satisfaction, the key to all tourism success, may come from good programs, special attractions, superior quality of management, and other factors. An astute designer can adapt designs to fit the setting and functions rather than copy
designs of others.

As landscape architects, we still can use the basic principles laid down by our founders and predecessors such as Frederick Law Olmsted and Hubbard Kimball. Their principles in the beginning of this century are equally applicable today; such as order in landscape composition, unity of design, visitor perception, emphasis, balance, harmony, sequence, and scale. The talent and experience of designers can be of great value to developers of ecolodges and related ecotourism.
UNIT 3. THE ECOLODGE AND THE TOURISM SYSTEM

(1.) Ecotourism must strive for a market-product match.

This simple statement has several very important implications. It assumes that we all know what the market is and what our product should be.

First, let's examine the ecotourism market side more closely. Even though we call it by one title, it actually is made up of great diversity. Sure, there is a common thread of wanting closer association with nature and culture when they take trips. But, that's where the similarity ends.

--Within ecotourist markets, some prefer convenience and comfort in lodging whereas others prefer primitive accommodations such as sleeping in the forest or under the stars. Both may equally enjoy nature photography or bird-watching but sort themselves out when services are concerned.

--Within ecotourists, some prefer vicarious nature experiences, such as tour guide narrations, interpretive center exhibits, and video presentations. However, others want none of this and want their own nature adventure with close contact with plants and animals.

--Many ecotourists, especially the retired and elderly, prefer comfortable are conditioned motorcoach tour access to sites where they can view wildlife and natural scenery without strenuous effort. Others however believe that half the fun is getting there and that hiking and backpacking are important parts of the eco-experience.

--Some ecotourists prefer nature descriptions presented to them in an entertaining manner because fun is a part of their vacation experience. Others, such as biology teachers and serious science buffs want no frills and wish nothing but the
unvarnished facts presented to them, certainly without silly jokes from the tour
guide.

--Many ecotourists today are also called adventure tourists and prefer high
degrees of risk. The challenge of white water rapids, a sheer mountain face to
climb, or deep sea diving are essential elements of the experience. Others take a
more passive approach and seek no physical challenges.

--Research now shows that many ecotourists prefer enjoyment of nature in
groups. The element of social exchange and comparisons of personal experiences
are important dimensions for them. Others much prefer solitary natural adventures,
uncluttered by other human beings.

--One class of ecotourists are collectors. They collect shells, snake skins that
have been shed, attractive pebbles, wildflowers, and even butterfly and insect
specimens. Hunters and fishermen kill more for trophies than for meat. But, a
growing class of ecotourists are not-consumptive. They seek nothing but viewing or
photographing wildlife and plants. Their memories and photographs are their
souvenirs.

I point out these different interests among ecotourists--and I am sure there are
many more kinds--only to alert you to the need for doing your own market research
to discover who you want to cater to and what they may seek in your tourism
development products--the balance between market and supply.

(2). Ecotourism must fit the overall functioning tourism system.

For all tourism, including ecotourism, the supply side can be described as
made up of five basic components. Viewing the system this way can help you in
your design and development for best success.
Fundamental to the system are the attractions—the things to see and do. Attractions serve two functions—they lure visitors and they provide visitor satisfactions. Lodging and other services are facilitators but seldom are the major reason for expenditure of time and money on travel. Quite likely the ecotourism attractions will lie outside the lodge, even on property owned and managed by others.

Essential to your ecolodge success will be transportation and access. You are at the mercy of those enterprises and governmental regulations that give visitors the opportunity to get to your place. In one of my consulting jobs, all lodging around the island was losing money because one unscrupulous individual had a stranglehold on all transportation. It is a factor you must acknowledge.

Essential are the creature comforts of food and lodging and other services. Generally, these represent a considerable part of the travel expenditure. Today, travelers are more sophisticated than ever and demand quality, even in the most rustic of services. In small-scale developments, such as ecolodges, these can mean much more to the visitors than bare necessities because of the personality and close contact with the manager who is likely to be the owner as well.

There are two more components that can have a great influence on your success. Because of the tremendous proliferation of choices today, the traveler has difficulty in sorting out the desired place to go. He or she seeks better information than ever before. Good guide books, maps, and tour guides that help describe the characteristics, locations, costs, and seasons of attractions are much desired. Today, this information is being aided greatly by computer information systems.

Notice that I separate promotion from information because it serves a different function. Too often, visitor centers contain only advertising brochures, not
good information. Usually, there are four forms of promotion practiced in the field of tourism, and you may find all of them useful—advertising, publicity, public relations, and incentives. Incentives are discounts and special packages.

Please observe that no matter where you are in your function or enterprise, you are caught up in the functioning system and depend as much on how well the other components work as well as your own.

(3). What are your natural and cultural resources?

Because ecotourism is not a contrived activity, it depends entirely on the local natural and cultural resources. But, we must understand the difference between a resource and an attraction. Too often, promotional literature boasts about the exotic wild animals, the rare wildflowers, or the beautiful white sand beaches as if they were attractions. For the visitor, these resources do not become true attractions unless they are planned, developed and managed for visitor use. Until this occurs these promoted assets cannot be enjoyed and experienced by the visitor.

Let me expand on this point a bit. I have identified six very important characteristics of attractions.

1. Easily Comprehended. Unless an attraction is understood by a visitor it means nothing. I remember standing beside a visitor to a national lakeshore along the Michigan coast who commented, "I drove all the way here to see nothing but a sandpile!" and went back to her car and left. She hadn't taken advantage of the interpretive center where the story of the unusual formation and constant movement of this huge sand dune was told. For ecotourism, it is essential that every effort is made to explain the natural and cultural phenomena that make up the appeal of the area.
2. **Founded in the Environment.** Ecotourism is not a Hollywood production. It grows from the special features that make up its physical geography. Unless a considerable number and high quality of these features exist in your locality, you should look elsewhere for ecotourism development. Again, remember that you are seeking features, that when developed, can meet the needs of special eco-traveler market segments.

3. **Owned and Managed.** Unless a specific area of resource assets, important to ecotourism, are owned and managed as an attraction, it is not available as an attraction. Frequently for an ecolodge this owner is someone else, often a national park service as an arm of government or a nature conservancy, controlled by a nonprofit organization. In order to identify the area as an attraction it will require an agreement with the agency regarding public access--where, when, and how much. It is the responsibility of designers and developers to work out the proper relationship and necessary agreements.

4. **Magnetism for a Market Segment.** An obvious but often misunderstood essential for every attraction is that it truly has magnetic power for a specific travel market segment. It is not enough for a developer to be enthusiastic about certain natural resource features. The question is--would a travel group be interested; do these features appeal to people at a travel origin many miles away? Another question--with some modification, such as tour guiding and interpretation, could the resources become an attraction?

5. **Capacity to satisfy.** In many instances, statistics on volume of visitors are cited as a measure of an attraction's success. But until these visitors are surveyed, who knows how many left disappointed? An attraction does not truly perform its function if the visitor experience was less than anticipated. If the wildlife couldn't
be seen; if there was too much congestion and waiting before taking a tour; if the restrooms were badly maintained; if the tour guide was rude or insensitive; and if none of the items promised in colorful brochures were experienced--what was advertised is not an attraction. It will take many years of change to overcome the bad word-of-mouth promotion by dissatisfied visitors.

6. Developed for Visitors. A continuing controversy exists between environmental protectionists and tourism developers. At one time a national park superintendent told me that his job was to keep people out of his park. In most regions this is not official policy but it is the attitude of the administrator. Today, there are many design and management techniques for handling volumes of visitors without damage to the environment. (I believe these will be discussed in detail later in the program.) The point here is that just because wildlife exists, because the river is there, and the forests are abundant, we just cannot turn masses of visitors loose in these environments. Policies must be established, plans must be made, and management practices must constantly monitor impacts on the environment.

(4.) The ecolodge must fulfill its supply side roles.

Although the ecolodge may be developed primarily for housing, by now it should be clear that it is intimately dependent upon the quality and success of all other components. Visitors will base their evaluation on their total experience. So, even though your facilities and services may be excellent, they may never return because of failure among the other related parts of their total experience--the overall ecotourism product.
(5) Ecotourism development is pluralistic.

Although the focus of their conference is on the individual ecolodge business enterprise, it is quite likely that two other sectors will be heavily involved. As we have discussed before, governmental groups are involved in many ways. Local governmental land use regulations may be critical. Other plans for economic development, such as mining, off-shore oil drilling, power generation, or industrial development may prove a threat to ecotourism. Even governmental policies on roads, water supply, policing and waste disposal can have a direct influence on what you do with an ecolodge.

Today, the nonprofit sector is playing an increasingly important role. A great amount of historic restoration and environmental protection is being accomplished by volunteers. It may be that for your location your greatest opportunities will lie in cooperation with some nonprofit organization such as the Nature Conservancy.

All three sectors--governments, nonprofit organizations and private enterprise are involved in ecotourism.

(6) Success depends on interaction, cooperation.

By now it should be clear that no one can develop any tourism without a great amount of interaction and even cooperation with many others. This very important fact is very frequently overlooked by new investors in tourism developments, especially by outsiders. Although this fact would appear to complicate and even delay the process, it is absolute necessity. You just can't wish it away.
(7) The tourism system is influenced greatly by several external factors.

Here are nine factors outside the functioning system that influence its operation greatly. Much of this we have already discussed. But, I bring this up to remind you again that your individual success is dependent upon these outside influences. For example, I have discovered that in some countries there is no cultural tradition of entrepreneurship— it just doesn’t exist. There are no people who understand that they can purchase land, develop and manage facilities on their own. This creates a vacuum and tends to invite outside investors, which we all know can be good or bad depending on how is it done.
UNIT 4. HOW TO DISCOVER ZONES OF POTENTIAL

You will recall that earlier I introduced the concept for working from the regional level on down to the site scale. Now, I'd like to explain one way this can be done. One process I am about to describe ends up with a map of the zones best suited to tourism development. Many years ago when I began work on this I was troubled by the fact that for agricultural development there was abundant information on zones where certain crops could be grown. This information, often displayed on maps, was based on key factors such as soil, slope, and climate. I was concerned that we had no such guidance for tourism and so I set out to work on it and developed a technique that identifies zones of greatest tourism development potential. In recent years, I have applied this technique for several state tourism plans--Oklahoma, Washington, S. Carolina, Delaware and Illinois.

This approach is based on the geographic fact that not all places are alike. They differ in both physical and cultural characteristics. If tourism is to be developed, it would be desirable to choose areas with the best physical and cultural factors. Where these are congruent--where all are found in greatest abundance and quality--should be the areas where the support of tourism is the best.

But, what factors should be considered? In selecting factors we had to make some assumptions. Because communities seek the greatest opportunities, we viewed tourism as a whole, not just one aspect. Second, we focused on geographic factors so that we could produce maps. Even though other factors, such as opportunity to finance, availability of land, land price, and managerial expertise are
important, our interest was on location.

For tourism planning purposes, we can think of a region—a state, province, or even nation—as made up of three main parts: **access**, **destinations**, and **circulation corridor**. By destinations, we mean community focal points surrounded by attractions. In order to find the zones best suited to future destination zone development, we have experimented with several factors and concluded that the best results can be obtained by studying and mapping the following, divided into a **natural resource** and a **cultural resource series**.

<table>
<thead>
<tr>
<th>Natural Resource Series</th>
<th>Cultural Resource Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Prehistory</td>
</tr>
<tr>
<td>Vegetation/wildlife</td>
<td>History</td>
</tr>
<tr>
<td>Topography/soils</td>
<td>Economic development</td>
</tr>
<tr>
<td>Existing natural resource dev.</td>
<td>Existing cultural resource dev.</td>
</tr>
<tr>
<td>Transportation</td>
<td>Transportation</td>
</tr>
<tr>
<td>Cities</td>
<td>Cities</td>
</tr>
</tbody>
</table>

Where maps of the distribution of each of these factors are overlaid by a GIS computer program, the resulting composite shows where their combination is strongest. Then, as illustrated for the six counties in northwestern South Carolina, one can generalize the zones of greatest tourism development potential based on either natural or cultural resources. Of course, those who live in the white areas ask the question, "how come we have no potential?" To this question, we have to answer that there may be potential but to develop tourism will require tremendous investment to overcome the lack of adequate resource foundation. Why not consider those areas that already have assets to build upon? Then, illustrated is the result of combining zones based on both natural and cultural resources.

In the Delaware example, I was asked to study only the natural resource base. The composite map resulting from overlaying maps of water, wildlife, vegetation,
topography, existing natural resource development, transportation, and cities shows locations where they combine in greatest to weakest support for tourism development. Then, using the research of these factors as well as the composite computer map, potential tourism development zones were identified.

Also illustrated are the resulting potential zones for the state of Illinois. Then, if you wish to reach back into the factors that led to these conclusions, you can review the table that shows the degree of support for each factor. For this study, we went one step further. Based on our research and public workshop meetings, we were able to identify projects with potential within each zone.

Following this regional analysis, the next step would be to make a more thorough study in each zone for finding ecotourism potential. I trust that you can now see the value of this kind of project for locating ecolodge development. If your region does not have similar information for you I definitely recommend that you encourage them to perform such a project. It need not be costly and can be done rather quickly. Its greatest value is to take a lot of guesswork out of the process of tourism development. Enthusiasm and commitment are much more productive when applied in zones that have the best factual base for tourism development.
UNIT 5. HOW TO SELECT AN ECOLODGE SITE

(1) Consider spatial patterns.

My first point is to again consider the market differences within the ecotourism travel markets and their relationship with their resource experiences. One source (Western Australian Tourism Commission) has identified six classes of development location: primitive, semi-primitive (non motorized), semi-primitive (motorized), roaded natural, rural, and urban. I would like to have you consider at least 5 location patterns.

A. Urban. For many visitors they prefer high grade accommodations located in the city of their arrival--by air, water, or highway. These hotels have the support of the city's infrastructure--water supply, waste disposal, police, fire protection. Then, they experience the resource on a day ecotour. This pattern has low impact on the resource because the tour can be kept in balance with the environment.

B. Rural Village. Some travelers would prefer a location in the nearest small town, again having access to the resources on an ecotour. It has advantages similar to type A.

C. Adjacent. Popular in South Africa is the location of ecolodges on private property adjacent to national or provincial parks. Again, this lessens the impact on the resource area and can provide several different levels of quality and service demand in the lodges. It does, however, require individual water supply and waste management on each site.

D. Within. As we have here at Maho Bay Camps, national parks sometimes lease land to developers of facilities, such as ecolodges. This again requires individual water, waste, and power supplies. It also requires strong control policies
by the agency managing the park to guarantee limits to capacity.

E. Exclusive. Several developers have purchased enough land to include the desired resource assets as well as a site for the lodge. This pattern may limit the diversity of natural and cultural experiences but targets specific market interests, such as forest hiking, bird watching, or relaxing.

How you locate and design your ecolodge depends upon which pattern is best suited to your local resources, the type of business you prefer, and anticipated market interests.

(2) Service relationships are important.

Throughout these patterns, every ecolodge is functionally related to access, transportation, and how visitors will experience the natural and cultural resources. Only in one of these patterns does the ecolodge owner have control over the attractions and their management. This fact emphasizes the need for close cooperation between ecolodge developers and owners of the attractions.

(3) Public land policies are important.

In most countries public agencies own and manage vast areas of land, many of which are important for ecotourism activities. But, as the great growth in tourism continues, there is increasing sensitivity to visitor pressure on public lands, especially national and provincial parks. Accompanying all tourist development is the baggage of infrastructure—roads, traffic, pollution, demands on water supply and waste disposal systems. Often these are seen as threats to protection of natural and cultural resources. Pattern option "D" is probably at greatest risk, particularly when
it is multiplied many times throughout a park or resource area. Today, in the US national parks, there is a strong move toward removal of tourist facilities. In many instances I have observed complete visitor satisfaction when housed and fed outside the park, coming in only on organized and controlled tours within the resource areas.

(4) Low key and small is the trend.

Even though the market demand for large high-rise beach resorts, there is a great trend toward smaller facilities. One can observe many reasons for this trend. In larger hotels, the service staff has no vested interest in the success of the place and often provides the minimum of personal interest and welfare of the visitor. Visitors demonstrated strong interest in personal service many years ago when the tourist courts and motels entered the travel picture. The resurgence of Bed-and-Breakfast establishments today exemplifies this trend.

Low-key and small developments have other advantages. The impact on local populations is less severe, especially the drastic culture shock between mass visitors and residents in developing countries. The small operation may be much more feasible for a local investor because it requires less capital. This type is better adapted to local management and labor. Small businesses can be adapted much more easily to the local environment and social setting. Designwise, the smaller operation can more easily reflect local place characteristics than a huge franchise operation whose design is created thousands of miles away. And, the smaller business creates a stronger feeling of belonging in a local area.
(5) Select "hardened" sites for development.

When landscape architects use the term "hardened site" we refer to site characteristics that are neither rare nor fragile and can accept modification with the least impact on natural and cultural settings.

Let me give you an example. Years ago, during the tourist boom of the 19960s in Hawaii, a 10-mile stretch of magnificent sandy beach was being considered for resort development. The major landscape and scenic feature was one fascinating outcrop, a reminder of an ancient lava deposit. Instead of protecting this outstanding feature, the first hotel was built directly on top of it, destroying its significance forever. There was no excuse for this inept design decision because there was ample land available elsewhere.

For ecotourism, there is a temptation to build lodging, food service, and interpretive visitor centers too close to rare and fragile resources. Too often, landscape architects are not brought into the decision making on site selection until after the wrong site has been selected. Their training and experience can be very useful in ecolodge site decisions.

(6.) Consider impact on local populations.

Let me emphasize again that no longer can proposed development be kept secret from local people. They insist on being involved. An increasing number of nations and areas have established policies whereby all new development must involve local residents. For example, Canada and Australia have created excellent guides for involving the public in tourism projects. Although techniques for involvement may take additional time and require more cost, many are available today that can avoid costly controversies and even lawsuits as the project
(7) Consider the eco-ethics of design.

The concept of the eco-ethics of design involves the bringing together of what is right and what is necessary. As such it is a matter of judgment and decision making. However, these conclusions are likely to be better if founded in fact. Many areas around the world are now placing new emphasis on eco-ethics of tourism. One of the best guides I have seen is *The Eco Ethics of Tourism Development* issued by the Western Australian Tourism Commission and the Environmental Protection Authority. A final statement reads, "We have not inherited the Earth from our parents, we have borrowed it from our children."

I would like to review briefly the 38 points they have identified, many of which we have already stressed.

ALL ENVIRONMENTS

1. Development should enable visitors to enjoy environment without degrading it. Appreciation, awareness and oneness with the environment should result.

2. Design should create positive interaction with natural forces.

3. Rapport and empathy with the site should be developed; its ambience maintained and enhanced.

4. Designers should not consider the environment as constraint but rather as a challenge to professional ability.

5. Size and scale must be considered right at the start of design. Carrying capacity is part of the first step of design.
6. Development must not reduce the original environmental attractiveness.
7. Public involvement should take place throughout the design process.
8. Development should not detract but rather even enhance enjoyment by local residents.
9. Development must be placed in context of overall region.
10. Development must be compatible with governmental policies and regulations.
11. Promotion of environmental awareness enhances visitor enjoyment and lessens management costs.
12. Accurate information must be offered visitors.
13. Tourists should adhere to motto: "Tread lightly on our land; take nothing but photographs and leave nothing but footprints."
14. Development staffs should be trained for a sense of environmental awareness.
15. Developers have an on-going responsibility for environmental protection.
16. Extension of recreation must not distort primitive and wilderness values.
17. All conservation measures must be a part of development.
18. Pollution must be minimized or even prevented.

BEACHES AND OCEAN FRONTAGE

19. Coasts should be planned to emphasize nodes where development can be concentrated and managed.
20. All development must harmonize with special assets of coasts; most development placed on "hardened" sites.
21. Development must respect dynamic forces of sea and shore.
22. Public access must be planned in an equitable manner.

23. Placement of roads should not be between tourism development and shore or on fragile coastal resources such as dunes.

24. Paths and walkways between development and beach must not impact vegetation or dunes.

25. Considerable setback must dominate all coastal tourism development.

REMOTE ENVIRONMENTS

26. Development must be designed so that new visitors view an untouched landscape.

27. Small groups and more intense participation should dominate rather than mass tourism use.

28. Guides with expert local experience provide the best information to visitors.

FORESTS AND NATIONAL PARKS

29. Proactive education for visitors can prevent brush and forest fires.

30. Revegetation of native species should be a policy of management.

31. Development within parks is a privilege and must respect all policies.

PASTORAL LEASES

32. Tourism and pastoral uses must be compatible.

WATERWAYS AND WETLANDS

33. Tourism development must respect natural river and estuarine resources.
34. Rights of downstream owners must be respected.
35. Development must not degrade natural wetlands.
36. Purity of all waters must be maintained.
37. Canal development must be designed in a responsible manner.

HERITAGE, BUILT ENVIRONMENT
38. Cultural heritage must be respected; new development must not intrude.

In addition, this fine publication includes Maxims for National Park Development, Environmental Assessment of a Tourism Site, Fragile Environments and the Need for Care, Carrying Capacity, and several other related topics.

(8) Establish visitor interpretive centers.

Today's increased mass visitor pressure on natural resources can be relieved greatly by the establishment visitor interpretive centers. In the United States, these centers were pioneered by the National Park Service and today provide a viable solution to the controversy about "loving our parks to death."

My recommendation is to expand on the national park concept and link interpretive centers to ecolodge development. An interpretive center concentrates tourists where they can gain a vicarious experience without damage to the environment. Such centers could be joint public-private developments and include services where revenues can be obtained. Here are some design suggestions.
(9) Monitor capacities and sustainability.

The term "carrying capacity" is a simple concept in theory but generally has caused more problems than solutions when attempts are made to apply it. At one time, the World Tourism Organization published a planning guide for developers that identified the maximum number of restaurant seats, hotel beds, and police for every 100 tourists. Of course, we know this kind of so-called standard just doesn't work. On the other hand, we must admit that some sites can stand only so many visitors without damage to the environment or to the visitor experience. Our National Park Service faces this regularly and has had to set quotas for some sites, such as the trail to the bottom of the Grand Canyon.

Rather than setting some rigid standards, I prefer the approach that researchers Getz, Williams, and Gill have developed. Simply, it states that the solution is to regularly monitor performance indicators, such as those shown in the table. Certainly, as planners, designers, and developers, we should create new environmental settings that are compatible with resource protection. But, we won't know exactly how our plans work out until they are implemented and used for some time. There needs to be regular monitoring of change, especially the impact in categories such as physical, economic, ecological, perceptual, socio/cultural, and political/administrative. Sustainability is another related term that tries to balance development with protection.
UNIT 6. DESIGN PROCESS

Those of you in the design field are regularly using design steps in order to complete your projects. But, I have been impressed by new approaches, especially that created by landscape architect Frederick Steiner. He calls it an "organic/rational" process. He says the typical problem-solving approach is too complex to really work--too many decision makers, influences, resource conditions, and trends in public opinion. Therefore, he recommends a middle ground toward a more "organic" process as illustrated in the diagram. Let's walk through these steps because I believe they are very useful for ecotodge and ecotourism planning and design.

Step 1. Problem and Opportunity Identification

For ecotourism, this first step should include consensus among four actors--the owner-developer, the design team, local citizenry, and an ecotourism market specialist. This takes time and may cost a bit more but it can avoid serious conflict later on. Workshops and other public involvement will reveal isssues that can be dealt with early on.

Step 2. Goal Establishment

I interpret this step to include both goals (long-range aims) and objectives (specific doable accomplishments). Goals might be: successful business, visitor satisfaction, protection of basic resources, and integration with local community. Objectives would state the specific site, type of facility, its size and functions, and
related physical development of the project.

**Steps 3 and 4. Regional and Local Inventory and Analysis**

We have already discussed what these steps might entail. They are critical to the outcome success of the project. Please note that all these steps involve public education and involvement. Perhaps this is the greatest change from traditional planning and design.

**Step 5. Detailed Studies**

The generalizations resulting from Steps 3 and 4 need to be refined. This step would include alternative site selections, their relative merit, and relationships to site characteristics and ecotourism markets.

**Step 6. Planning Concepts**

This is the first step in which the designers produce one or more concepts based on all the preceding steps. This is very critical because it is the first time that graphic interpretation of earlier analysis is made for all to see and review.

**Step 7. Landscape Plan**

I would expand this to include all design—architecture, landscape architecture, engineering. It is here that the concepts of Step 6 are translated into specific working drawings suitable for estimating and contracting. Certainly, this step does include close cooperation not only between the designer and owner but especially with local officials, citizenry, and travel specialists.

**Step 8. Education and Citizen Involvement**

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This is perhaps the greatest deviation from traditional design. Critics might say, "What do lay people know about ecotourism design?" Throughout the world today, local citizens are taking on more responsibility for action that will impact them.

**Step 9. Detailed Design**

This may seem redundant but experience shows that original plans are likely to change, especially when budgets are considered and public reaction is revealed. This step should result in the most buildable project plans.

**Step 10. Plan and Design Implementation**

This state merely that the project is built. But, in this step, consideration must be given to needed action by others, such as improved transportation and access, cooperation with public agencies managing resources and changes in policies, and cooperation on tourist information and interpretation.

**Step 11. Administration and Evaluation**

Frequently this step is omitted. For example, a retired designer of national parks once confessed to me that in his 30-year career he never visited the implemented plan of any park he designed! He never knew whether any of them worked. Any development, especially ecotourism, must be evaluated regularly to determine how well it meets visitor needs, meets the anticipated objectives of the owner, and how well it is protecting environmental assets. No designer or owner is that wise to predict all these consequences beforehand.
This process is sure to produce a better ecotourism world.

CONCLUSIONS

What are the conclusions we can reach from this discussion? I would hope that two major points have become clear today. Let me emphasize them.

First: All of you, as designers and developers, have tremendous opportunities today to create new and innovative facilities, services, and programs to meet this burgeoning demand for ecotourism--to tap their interests, their feelings, and their search for experiences in nature.

Second: With these abundant opportunities come important responsibilities--that in all planning and development, we must use every known technique and principle available that will leave all the precious environmental gifts in even better shape than when we found them.