

NATURE TRAILS

ASPI Technical Series

INTRODUCTION

Many communities and neighborhoods want publicly accessible pathways where local folks and outsiders can enjoy nature in the wild. Nature trails are one alternative, for they allow access at low impact and less bother than walking overland.

Trails can vary in complexity, length, surface material, and difficulty in traversing. If there are enough resources and land, consider making two or more circuits or radiating trails, some for the more hearty and adventurous and some for those more encumbered or unable to hike easily over difficult and steep terrain.

Trail designers suggest three sets of trails: (a) a graded path or inner circuit for strollers, walkers or those with wheel chairs; (b) possibly a sawdust trail of medium difficulty for those with toddlers or older ambulatory persons, and (c) a more difficult natural course for those in the peak of energy.

RATIONALE FOR A NATURE TRAIL

Nature trails are good for communities for they offer equal opportunity to experience nature firsthand with a minimum of difficulty for the hiker or disturbance to the eco-system.

Trails can be designated so that natural areas of interest are highlighted. This is convenient for those wishing to learn more about their own bioregion (a popular term referring to a given area where the biotic species are somewhat similar and used in counter-distinction to political or cultural regions of the world).

Nature trails are assets to an environmental center or communal operation for they symbolize the need to preserve some degree of natural activity, flora and fauna.

Nature trails permit persons access to a property's wildlife and wilderness areas while at the same time doing the least impact by covering planned pathways.

Nature trails can be a controlled system for measuring or recording (by video or camera) the change of the seasons and the variation of phenomena. This natural progression can be enjoyed by the nature observer during the four seasons of the year.



ASPI TRAIL

TRAIL OPPORTUNITIES

Volunteers: Constructing a nature trail offers opportunities for volunteer workers who lack professional skills but have a great desire to care for our Earth. They can come together as individuals or, more preferably, as groups to build something visible and appreciated with future value and endurance. Some fifty volunteers helped plan, build and designate areas of interest along the one-mile nature trail at the ASPI property. Maintaining the trail requires ongoing attention and this can also be done in part by volunteers. Trail owners can seek to encourage and engage groups from schools, parishes or other community organizations.

Local Education: The presence of a nature trail offers opportunity for those in a community to learn more about their place and time. Being aware of where and when we are is essential for a growing environmental consciousness. Trails open the possibilities to become familiar with a particular location -- while the changing seasons give emphasis to the passing of time. Available literature and detailed information or books can likewise be a gentle prod for the observers to become learners. Keep in mind that trails can also be ideal as change of pattern programs for local schools and youth clubs.

Recreational Asset: Nature trails provide added recreational choices for often depleted and impoverished communities. People who otherwise have little to do on days off can enjoy the fresh air and exercise. A trail can contribute to the growing affirmation of value in all communities, even those which may be damaged by resource exploitation or environmental pollution.

Spiritual Value: Finally, a trail is a place to reflect and get away from the hustle and bustle of our busy world. One can choose from choice locations for camping, sitting or standing to observe nature. Trails are part of the quiet space required for the reduction of stress and tension in individuals and communities. It also opens the wilderness to entrance by humans while placing necessary restrictions on our behavior in such sacred places.



PLANNING A TRAIL

Trails can be of various lengths and shapes, most often a combination of radiating spokes and circuits. Logistically ending where one begins is best, but other shapes could be designed, for example: figure eights or concentric circles. This is dependent on the demands and creativity of the trail designer. When laying out the plans consider the following suggestions:

- * Use marking materials which can be removed and do not permanently damage trees, such as colored ribbons or stakes;

- * Remember that steep slopes may be too difficult for some who attempt the trail;

- * Be aware that trails may erode and that proper design can eliminate or reduce water damage;

- * Consider the fact that known trail areas can also be inviting places for those who want to have an unregulated party. Beginning and ending at places of regular habitation can be very valuable in avoiding this;

- * Be mindful that sites of reflection (standing, sitting or camping) ideally, should be slightly off of and hidden from the trail proper. All places have more ideal sites for greater visual, auditory and other sensory perceptions;

- * Use as much native materials as possible for signs, seats, guard rails or other needed construction materials;

- * Explore and try to exhaust the list of areas of possible natural interest within the circuit of a comprehensive nature trail;

- * Some places have high potential for ecological sensory awareness (scent of evergreens, sound of rushing water, cool breezes, distant vistas, taste of sweet birch, etc.). Enlist the assistance of a local naturalist to help find these sites and make sure they are on or near the trail. Include adequate seating for hikers to stop and reflect;

- * After flagging the trail route, ask others who enjoy nature to walk the circuit and add comments about possible changes for better privacy, view or access. Opinions of naturalists and those belonging to trail clubs may prove quite valuable;

- * When actually building the trail, make sure the planners are present to avoid making mistakes which may prove difficult to remedy;

- * Mark off the specific pathway and review it several times allowing for slight changes. The checklist of twenty possible areas of interest should be considered in the final plotting. Very sensitive plants may be omitted as well as historical or archeological points of interest due to the possibility of theft or poaching. Generally speaking, tying this to Indian habitation or burial sites would add to the interest, but it may prove disruptive to the preservation of these sites. Such mention could be interwoven in other discussions and only in a vague but respectful manner, not specifying exact locations.



TRAIL SWITCHBACK

DESIGNATED SUBJECT AREAS

Geological: rock formations and caves
minerals and soils
springs and ground water
running streams and water courses
mountains or general landscape

Natural Phenomena: tornadoes, earthquakes, floods

Flora: wild flowers
trees
shrubs, bushes and berries
vines
ferns
mosses and lichens
greens, grasses and herbs
fungus

Fauna: insects
arachnids especially spiders
snakes
birds
frogs and amphibians
small mammals (squirrels, rabbits, etc.)
large animals (deer, bobcat, etc.)

Natural cycles: decaying logs
natural succession in disturbed areas

CONSTRUCTION TOOLS

Trail tools should include:

Spades, firehoses, pruning saws, bowsaws, two-person saws, or axes for fallen logs or partly down dead trees, brush hook, scythe clippers or pruning shears for vines, brambles, briars and small bushes, and post hole digging tools for designation posts, concrete tools for filling post holes, hammers for spending trail signs, marking instruments, measuring tape to determine distances between sign posts or marker areas, wheelbarrows, handcarts for hauling.

BUILDING THE TRAIL

The trailway should be carefully marked and flagged as to width, sign positions, and switchbacks. One person should be designated the leader of the program and should know the route perfectly. Preferably, this leader should be someone with previous trail-making experience. Sub-divisions of the workers should also have someone who is responsible and understands the routes to be taken.

When volunteers are assisting, make sure that the procedure is well explained before work begins in wooded areas. It is difficult to erase mistakes once groups or individuals have made them.

Less difficult areas should be built first so workers can gain the proper experience and sense of confidence. A basic working principle, when making a trail is to disturb as little of the countryside as possible. Cleaning the surface of brush, brambles and fallen logs may be sufficient. In places where dirt is exposed some surfacing with sawdust or other low-impact materials may be preferable. Where trails for wheelchairs are being built special emphasis is placed on use of concrete, asphalt, gravel, or, preferably, native packed clay.

On steep slopes one of several construction procedures may be followed:

- (a) cut into the side of the hill and go with the slope
- (b) develop a proper switchback maneuver;
- (c) develop wood or stone steps depending on available building materials;
- (d) construct a cable for handholds while climbing very steep hillsides;
- (e) develop a more gradual climb over a slightly different route.



TRAIL INTERPRETATION

It is best to discover natural phenomenon by oneself and thus some trails lend themselves to informality. Over designation may prove disappointing or somewhat over done by those who want to be in a truly natural setting. Generally, these people already have a rather full natural history experience. However, remember that many without a special sensitivity to or knowledge of nature will miss much of the flora and fauna information and may appreciate fuller explanations. Often they may wish to hide their previous ignorance. A rule is to make the descriptions as simple as possible, but to include some biological technical terminology.

Several suggestions are worth considering:

Designated areas with signs or markers describing plants or animals worthy of note;

Spurs or specific locations for camping, observing or reflecting. Building these with at hand native materials is the best. Tree stumps or logs make good chairs or resting areas.

Booklets or flyers which are keyed to corresponding numbers or other symbols at sign posts or markers and which describe interesting subjects in greater detail;

An interpretative human guide who accompanies the tour and talks about the area (beyond most budgets unless a volunteer);

An audiotape guide made by a knowledgeable naturalist;

A video tape or slide show that can be used prior to or after the tour to describe what may be or has been found on the trail;

Seasonally adjusted flyers are most helpful especially in non-growing portions of the year. Be aware that much can be observed during such seasons.

Arrange for a local naturalist to escort visitors on special days of the year or on an occasional basis.



TRAIL STEPS

DEDICATING AND OPENING THE TRAIL

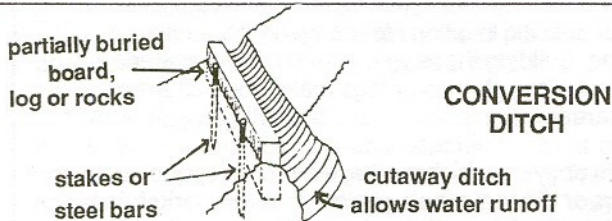
An excellent way to publicize the trail is to make a "trail event" which can include the dedication of the project to either someone with a great love of nature, a group of people such as the tribe of Indians, who called the area home, a portion of the trail known for its prominence (e.g., a cave or large tree), or to something associated with a historic event in the area. Be both bioregionally and culturally sensitive. Publicize the event; bring in speakers or resource people to talk about the natural setting; get the youth involved; get newspapers and periodicals to write up the event; and place the trail on maps of highlights in your part of the nation.

MAINTENANCE

Trails are part of dynamic biosystems; the ground and surroundings do not stand still. In wetter areas growth may be quite rapid and trails tend to disappear under a carpet of undergrowth or fallen leaves or after a heavy rain. Maintenance is an ongoing process and the ideal nature trail is a financially endowed one -- but very few are so lucky.

Periodically a grounds crew or volunteers should be encouraged to traverse the trail to cut away fallen logs or brush, stop erosion, remove obstacles, determine whether abuse has occurred, and cut away possible brambles and undergrowth. A maintenance club is ideal but almost a luxury except for the better known trails. Annual events are the second best thing and can be coupled with a certain time of the year or field day on the grounds.

When accumulated water runs down a trail there is the potential for severe erosion. A major improvement in this incidence are run off ditches, which can be constructed to deflect the water away from the trail. These could be built as often as necessary on a trail which hopefully will not have to be rerouted -- a last resort. See diagram.



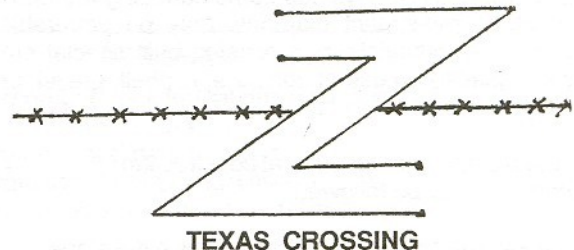
Maintenance may include destroying nests of stinging insects, such as wasps, hornets and yellow jackets. Kerosene is less toxic than many of the commercial chemical pesticides -- and just as effective. It is important for the sake of liability to prove that efforts are made to keep the trail stinging insect free.* If liability insurance is beyond the reach of nature trail maintainers it may be necessary to develop liability waivers to be signed by all over 18 and only allow those younger to use the trail when accompanied by waiver-signing parents or insured youth groups.

* Note: If the nests are at such distance that they will not be easily disturbed, allow them to remain. It may be wise to alert hikers as to the type and location of the insects. Needless to say, hornets can sense the direction from which an object is thrown. Nature has a right not to be disturbed.

POSTING THE TRAIL

To keep the trail and its surrounding ecosystem in good condition it may be necessary to restrict its use. Often offending parties and individuals must be forbidden to use the trail due to damage they may incur. Some trails are closed to hunters, bikers, loggers, horses and off-road motorized vehicles. Determinations need to be made based on who enjoys the trail and whether the damage curtails that enjoyment to a noticeable degree or causes serious damage to the trail and its immediate environment.

A major problem on trails is the presence of "off-road vehicles" or ORVs. These should not be allowed at any place on a nature trail, especially at the start or finishing point. Obstacles and warning signs may prove sufficient. Also, crossing obstacles such as Texas fence crossings may be required in order to discourage these environmental threats. Such practices should be immediately challenged. If the offending practices cannot be easily checked by the discovering party the proper authorities should be notified.



HINTS TO STARTING A TRAIL

Collect signatures of those wishing to use a trail;

Develop a maintenance trail committee;

Persuade property owners as to trail merits;

Include in arguments the fact that few trail users are guilty of doing harm;

Emphasize the benefit of trail use;

Remember nature trails are non-threatening and some what fundable;

START A TRAIL CLUB

People enjoy working on trails as much as hiking them. Public and private groups sponsor and encourage Trail-Clubs which organize hikes and maintenance weeks or weekends.

When organizing the club or events, place notices in prominent locations (laundromats, camping stores, or at academic institutions). Have someone serve as the contact person and hold periodic meetings if necessary. The dues are in the labor of love. Keep formality to a minimum. Always make sure that adequate tools and materials are assembled at work time.

Interest people in writing about and featuring the nature trail. If the trail is designated semi or totally private, at least allow open house on appointed "Trail Days".