

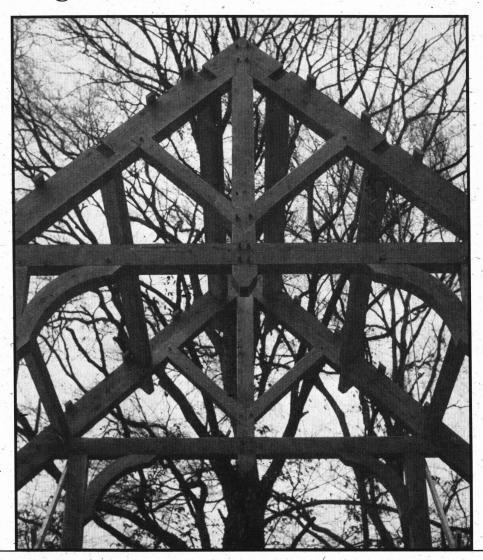
The Chattooga Quarterly

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Growing Alternatives & Creative Solutions



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Director's Page

Buzz Williams, CRWC Executive Director

On January 22, 1998, the Chief of the Forest Service announced two related administrative proposals that indicate a sharp turn in national forest management policy. The proposal by Chief Dombeck was for an interim rule to temporarily suspend road construction in roadless areas and further, he gave notice of his agencies intention "to revise the regulations concerning the management of the national forest transportation system to address changes in how the

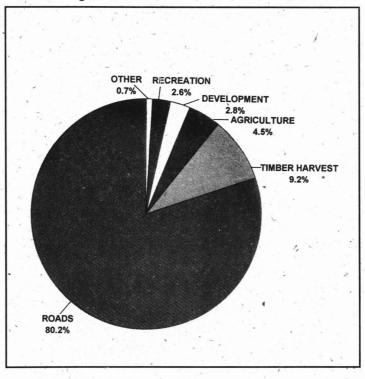
road system is developed, used, maintained and funded". This sent advocates on all sides of the issue scrambling to meet comment deadlines for both proposals.

But the moratorium had left out Alaska, the Pacific Northwest and areas that had just completed Forest Plan revisions. In addition, it did not exclude logging in roadless areas but rather, only prohibited road building, which left room for helicopter logging in these areas. Those near eastern national forests felt discriminated against, since most "inventoried" roadless areas are out west, and also since the moratorium had a cut-off of only those areas greater than 5,000 acres, unless they were contiguous with a Wilderness or a Wild and Scenic River. The

proposal did, however, mention that Regional Foresters could include in the moratorium those areas, regardless of size, which are determined to have "special and unique ecological characteristics or social values".

My prognostication is that most urgent requests to modify the moratorium to include more acreage will fail. It is more likely that we will have to fight for every inch of what is *left out* of this proposal on the ground, one timber sale at a time. In the meantime, we will be well served to get out in front of the proposal to revise regulations regarding road management, use, maintenance and funding. This is the real meat in this nut. In order to do that, we need to read the actual words in the Federal Register to find clues to the real pressure points.

In the summary of this document it is stated that the national forest transportation system was largely funded for timber harvesting and development of other resources, and that today this type of management is clearly a matter of public debate over "appropriate uses" and "cost". The agency now also admits that there is a clear shift toward recreation, fiscally responsible management and an acknowledgment of scientific information, which shows past management practices have resulted in habitat fragmentation, landslides, reduction in wildlife travel corridors, invasion of exotic plants, increases in person-caused fires, reduction of fish habitat and flooding.



The distribution of observable sediment sources as identified from a survey of public, unpaved roads in the Chattooga Watershed. From Sedimentation in the Chattooga River Watershed, by Van Lear, Taylor & Hansen, Clemson U.

Is this divine intervention? We've been telling the great leaders in Washington and the Forest Service these things for years, but to no avail. Suddenly, they agree with us? Wait a minute. First, there really is something different this time. The other side is now framing roadbuilding as a deficit reduction issue. In the appendix of the proposal announcement, there are some great and telling statistics. There is a 10 billion dollar backlog of road maintenance costs. Timber harvesting has dropped by two-thirds. Recreation is up by 40% and climbing. And the public has finally recognized the great value of protecting roadless areas. Give those in the administration and the Forest Service credit for taking advantage in this break in the political clouds to do something good.

OK, what do we do to take advantage of this proposed change in the rules? The timber lobby is still in Washington pouring money into advocacy for timber targets, and the Forest Service timber people are still in place trying to get the cut out from a greatly reduced resource base. First, keep fighting for those roadless areas they missed. On the other hand, look out for the use fees for recreation which will keep the bureaucratic budgets bloated. And let's find out who these researchers and specialists are that are working on this new road policy. Let's make specific recommendations for road obliteration. Talk about these issues in your community. Write your congressional representatives and the Forest Service, supporting road management based on local citizen's alternatives such as the Chattooga Conservation Plan (see p.17). Finally, this announcement is very encouraging. We need to take advantage of this opportunity. Carpe diem.

Hunting in the 3rd Millennium...and Beyond?

Reprinted with permission from Quality Whitetails, Vol. 4, Issue 2.

Johnny Stowe, Wildlife Biologist, Heritage Preserve Manager, SC Department of Natural Resources.

"Life is a constant process of getting used to something you hadn't expected." Ernest E. Provost, Professor Emeritus, University of Georgia.

As we approach the twenty-first century, lots of folks are making predictions, and devising strategic plans to steer various entities into the next millennium. This spate of thought has spurred me, an avid hunter, to ponder what the incessant changes of coming years hold for the future of hunting.

Many hunters, and some of the organizations they

support, seem to have a knee-jerk defensive reaction to any suggestion that perhaps certain hunting practices, and the habitat management some of these practices are based on, may not be appropriate in light of increasing environmental knowledge and contemporary social mores. This neophobia is counter-productive to the future of hunting.

PAST MISTAKES

The fight several years ago against the lead shot ban for waterfowl hunting exemplifies this neophobic behavior. Lead shot deposited into wetlands by hunters was proven by Frank Bellrose and others to harm waterfowl that ingested it, but attempts to ban lead shot for waterfowl

hunting met stiff resistance from many hunters, and from some powerful hunter-based organizations. Hunters that fought the ban were afraid of change. They resisted the idea of using steel shot, arguing that it would not perform as well and that it would harm their shotguns. They didn't want anyone taking away any of their hunting prerogatives.

Sadly, it took a lawsuit from Defenders of Wildlife, an organization that is definitely not hunter-oriented, to halt this environmentally damaging practice. Defenders of Wildlife sued the U.S. Fish and Wildlife Service for violating the Endangered Species Act since bald eagles, at that time a federally listed Endangered species (since

downlisted to Threatened status), were being poisoned by lead after consuming waterfowl that had ingested lead shot. Defenders of Wildlife won the suit, so now waterfowl hunters must use steel shot. Our wetland ecosystems benefit from these new regulations. While I don't agree with all of Defenders of Wildlife's agenda, in this case I believe the group was right, and the hunters and organizations that fought the ban were wrong.

We aren't to blame for using lead shot in wetlands in the days before we knew it was harming wildlife. But once we did know, wouldn't it have been better if hunters themselves had supported such a change? Wouldn't such action have shown the public that we were sincerely concerned about the integrity of the ecosystem, and not solely the species we

hunt?

In another situation, the state of Hawaii introduced mouflon sheep to the Island of Hawaii for hunting. The sheep severely browsed the mamanenaio woodlands that are the primary habitat of the federally Endangered palila bird. Here again, many hunters and hunter-based groups fought the removal of mouflon sheep from palila bird habitat. Sierra Club sued the state for "taking" the bird's critical habitat, and won. The state had to remove the sheep from the mamanenaio woodlands. This was another case where a hunting practice was environmentally unsound, yet hunters closemindedly fought the cessation.



Aldo Leopold, the thoughtful hunter whose work serves as the cornerstone of modern ecological philosophy, reflected on hunting customs and changed his hunting practices accordingly, although he remained an ardent hunter until the day he died.

Photograph by Bernard Schesmetzler

THE TIMES -THEY
ARE A'CHANGING

As we learn more about the environment, the effects of different hunting practices will become more clear. I believe most extant regulated hunting and the accompanying management practices will be shown to be not just innocuous, but a boon to the environment. Some practices may turn out to be environmentally harmful though. If so, we'll need to alter our actions. Ignorance can be excused; apathy cannot. Where we are not sure about the effects of what we do, we should try to err on the side of caution.

One area where caution is needed is the planting of potentially invasive exotic species. From experience we

Hunting continued

know that many exotic plants beneficial to both game and non-game will "stay where we put them". Other species, however, spread and supplant native species. Folks who planted kudzu, privet and other such species did it through the belief that it was good for the land, and benefits such as mitigation of erosion did accrue. Such actions were done in ignorance of the environmental costs and therefore are not blameworthy. However, knowing what we do now, to continue to disseminate invasive exotics (no matter how "good" they are for a select few wildlife species) epitomizes environmental apathy. And apathy is culpable. Aldo Leopold urged us to use caution in moving species around when he wrote, "native plants....kept the energy circuit open; others may not."

In addition to adapting to changes in environmental knowledge over time, we need to adapt to social changes. As we've seen in the last few years, certain traditional hunting practices are increasingly being deemed unacceptable to the rank and file of our citizenry. The bans on cougar hunting and certain types of black bear hunting in western states via referendum are harbingers we should heed.

In a recent article in *International Game Warden*, Harris Mills makes good argument against referring to hunting as a sport. He suggests we instead refer to it as ritual, since the idea of killing animals for sport tends to be offensive to the public. Euphemism however, is not the answer to the threats facing hunting. We need to *treat* hunting as a ritual. Because when properly practiced, it is more of a ritual than a sport.

Another practice we need to reconsider is the merit of high stakes "Big Buck contests". Assertions like "hunting is a form of communion with nature" ring hollow to the public in light of the highly competitive sporting nature of these contests. Perhaps instead of doing away with these events, prizes should go to the winner's designated non-profit, conservation-based organization, such as the Quality Deer Management Association (QDMA), Ducks Unlimited, or The Nature Conservancy.

Gadgetry is another issue to consider. One look at some of our "hunting" magazines or a stroll through one of the annual "hunting" expos that have burgeoned lately reveals a diverse deluge of paraphernalia. Again, claims of "bonding with nature" seem incongruous to a public that sees hunters resembling, as Ted Kerasote describes, "a cross between Darth Vader and a commando".

But technology is not all bad; it can enable us to lessen the suffering of the animals we hunt, for instance. Even Leopold, who made his own archery equipment and was something of a purist, admitted using "many factory-made gadgets". The challenge he said was to "use mechanical aids, in moderation, without being used by them".

Laws limit the technology we use in hunting, but laws cannot cover every aspect of gadgetry. Nor can laws cover ethics, except in the sense that an ethical hunter will, as a minimum, abide by the law. By "as a minimum", I mean that the true gauge of ethical behavior lies in how individuals or groups self-limit their behavior more than is required by law.

Fran Hamerstrom, one of Leopold's graduate students, described this type of behavior well in a letter to me about her hunts with Leopold and her husband Frederick. She wrote, "Leopold was such a good shot and so skilled in hunting that he kept setting restrictions to make the hunt more difficult. I do not ever remember him mentioning 'getting his limit.' We almost instinctively went for self-set bag limits (often lower than the legal limits). These were based on our own knowledge of the status of the species we were hunting."

Although game laws are set as specifically as is practically possible, variations within management units can be wide. What Leopold and the Hammerstroms practiced, and what thoughtful hunters such as QDMA members advocate, involves restrictions beyond what the law requires, for the sake of the biotic community. This is what ethics are all about..

Besides merely adapting to societal changes, we should try to influence them also. We need to show the public, which will ultimately decide the fate of hunting, that our activities are beneficial to both society and the environment.

Developing a sound knowledge of ecological philosophy (ecosophy) is one way to articulate our view effectively. J. Baird Callicott, an authority on Leopold's land ethic, has done an excellent job of applying the land ethic to present day polemics. In the journal *Environmental Ethics*, he wrote, "... to hunt and kill white-tailed deer in certain districts may not be ethically permissible, it might actually be a moral requirement, necessary to protect the environment, taken as a whole, from the disintegrating effects of a cervid population explosion."

IT'S TIME TO REFLECT

The philosopher John Dewey described two kinds of morality, customary and reflective. Customary morality is based, as the name implies, on custom. Adherents to this type of morality base their decisions on the way their family and community did things in the distant past. All of us act in this way some of the time, and doing so is important to maintaining traditions and cultures.

Reflective morality is based—again, as the name implies—on reflection. When people practice reflective morality, they contemplate the way things have been done, and try to decide in an objective manner, whether that's the way things should continue to be done. In some situations a person will decide that the customs are correct, and therefore worth fighting for (e.g. ecologically sound and publicly acceptable hunting practices). In others, a person might decide that slight or even diametric alterations to customs are in order.

Leopold's experience in the American Southwest provides a good example of both types of morality. In "Thinking Like a Mountain", an essay in Leopold's conservation classic, A Sand County Almanac, the Father of Wildlife Management laments his participation in extirpating the wolf from the region. In his inimitable

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Hunting continued

prose, Leopold wrote:

"We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever since, that there was something new to me in those eyes—something known only to her and to the mountain. I was young then, and full of trigger-itch; I thought that because fewer wolves meant more deer, that no wolves would mean hunter's paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view."

Leopold goes on to describe seeing the ecological disruption on "...many a newly wolfless mountain...[with] every edible tree defoliated to the height of a saddle horn...[and] in the end starved bones of the hoped-for deer herd, dead of its own too-much."

Leopold's instant reaction to try to kill the wolf was based on customary morality. Implicit in his words, "In those days we had never heard of passing up a chance to kill a wolf. In a second we were pumping lead into the pack...", is the notion that most people never even thought about passing up such a chance. One simply did not miss out on such an opportunity. In this case the custom was wrong, as Leopold later realized. He was using hyperbole and poetic license to dramatize the essay, which was written years after the incident occurred—when he wrote of realizing the error as he watched the "fierce green fire dying in her eyes." It was

actually years later before his ideas on the extirpation of large predators changed.

The point is, his ideas did change. He engaged in reflective morality, and based on his reflections, he decided that the customary practice of eradicating wolves was not ecologically sound. Now for argument sake, just think how his partners on the rim rock that day would have looked at him if he had tried to restrain them from shooting at the wolf. They'd have thought he had been out in the southwestern sun to long without his hat. This type of reaction is what thoughtful hunters may have to endure from less intrepid, obstinate and ecologically myopic hunters, in order to effect the changes needed to save the ritual of hunting.

Years later, Leopold was labeled an iconoclast and suffered much abuse for standing up for the health of the biota by suggesting a change in customary hunting practices in Wisconsin. Drawing on his knowledge of the consequences of deer overpopulation in Pennsylvania, Michigan, and Arizona's Kaibab Plateau, he recommended having an antlerless deer season, closing the buck season, opening over-browsed refuges to hunting, and lifting the bounties on wolves to improve the sex ratio of the deer herd and lower its numbers. He was lambasted by the public, including hunters, who considered does to be "sacred

cows". Always the professional, Leopold maintained his dignity throughout the ordeal, and today it's clear he was

FIGHT FOR TRADITION, BUT REFLECT FIRST

What I think we need to protect is the future of hunting over the next fifty years, five hundred years—and ultimately in perpetuity—is hunters who are brave and open-minded enough to reflect on their sport, and where change is needed, to fight for it...even in the face of opposition from their fellow hunters. Let's try to save hunting for the sake of our children and grandchildren, certainly, but more importantly, let's look farther into the

future and save it for distant

generations.

Should we fight to maintain traditions? Absolutely! But only after reflection shows them to be worth fighting for. All traditions may not be.

In the environment, species with narrow niches may not be able to adapt quickly enough to rapid change to survive. An analogy between contemporary hunters and such species can be made. Change is incessant. In the United States the percentage of population that hunts is dropping. But unlike the aforementioned species, which over long time spans must evolve to meet changing conditions, and which decline when change is rapid—

hunters can use their minds to make quick changes to preserve their sport. Certainly we need to concern ourselves about protecting our hunting traditions for the next season, and the next decade. But we also must realize that everything we've been doing may not be environmentally sound or publicly acceptable, and that if we stubbornly try to protect every vestige of our hunting privileges there will come a day when we lose them all.

Some may say I'm promoting a divisiveness which hunters can ill afford. I disagree. The axiom "United we stand; divided we fall" has limited applicability. We should accept and fight for change when it's appropriate. If we don't, we will fall—united or not.

I certainly don't have all the answers (nor all the questions), but groups like the QDMA contain some of the minds needed to raise the right questions—and to answer them. I hope this article stimulates discussion, which may help our cause.

Aldo Leopold, the thoughtful hunter whose work serves as the cornerstone of modern ecological philosophy, reflected on hunting customs and changed his hunting practices accordingly, although he remained an ardent hunter until the day he died. What better role model is there?

What I think we need to protect is the future of hunting over the next fifty years, five hundred years,—and ultimately in perpetuity—is hunters who are brave and open-minded enough to reflect-on their sport, and where change is needed, to fight for it ... even in the face

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their fellow hunters.

Citizen's Forestry Tools

From PUBLIC FORESTER, which periodically includes useful tools, tables and instructions for citizen foresters.

Estimating Basal Area

Visualizing how much of a timber stand will be removed or reserved is becoming more pertinent as we proceed into selective timber cutting on public land. The ability to estimate basal area quickly inside a timber stand when roughing-out management decisions or pre-visualizing future stand condition is important. If you're a little rusty, accustomed to using a wedge, or not a timber person, here's a relatively simple method of getting into the ballpark without any tools:

Use Your Thumb to Estimate Basal Area

Hold your thumb upright, with your arm extended straight in front of your body. Using your thumb as a cruising wedge, rotate around 360 degrees while holding your position. Count all the tree stems that are equal to or larger than the width of your thumb as "in". In trees are part of your sample; "out" trees are too far away, or too small. Obviously, your sample plot radius will vary with tree diameter. For average spans and thumb widths, a basal area factor of about fifteen is reasonable. Multiplying the in stems times your thumb factor (15+) yields the approximate basal area of the stand in square feet per acre.

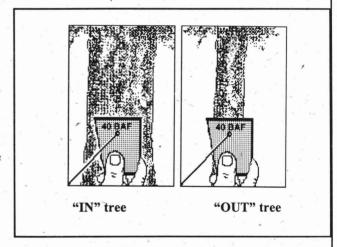
Making a Basal Area Wedge

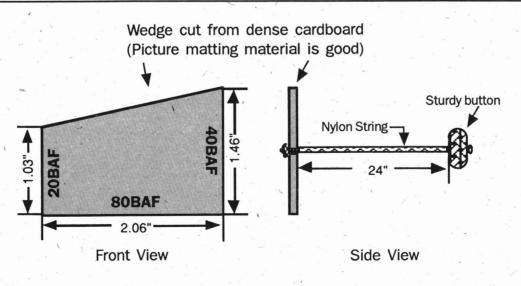
The basal area of a forest stand may be measured with a simple wedge, held at a set distance from your eye. The wedge shown below is designed to allow you to accurately estimate basal area using a multiplier-factor of 20, 40 or 80. The smaller

factors give you more count (in) trees, the larger factors give you fewer. Consequently, use the larger factor in stands of big trees or in denser stands. A sample point count of 7 to 12 trees is statistically ideal.

Using the Wedge

Clamp the button between your teeth and stretch the wedge out to your front, keeping the string taut. Use the factorial edge you select as you would your thumb in the instructions above. Measuring eight tree stems as *in* with the 20 factor side is the same as counting four in trees with the 40 factor—160 square feet of basal area.





Forestry for a New Value System

Buzz Williams

"Traditional" forestry, which is the science of cultivating forests strictly for the production of timber, involves the study of the biological and ecological characteristics of a forest known as silvics. Silviculture, therefore, according to one Forest Service definition is defined as "the art and science of producing and tending a forest, and applying the knowledge of silvics in controlling forest establishment, composition and growth" (Smith, 1962). The predominant value system at the heart of traditional forestry centers on maximum yield of salable wood products. In a modern world, where habitat destruction and the subsequent loss of biological diversity and species extinctions have become a reality, a new concept of forestry that features natural habitat maintenance as the highest value of a managed forest has begun to evolve. This new doctrine must have at its heart the concept that the greatest mission of a forester is to contribute to the preservation of all life on Earth.

The US Forest Service administers its timber program based on individual Forest Plans, which promote traditional concepts of forestry. Forestry techniques used on our national forests incorporate accepted biological or silvicultural principles, but with a narrow focus on a small number of commercial tree species. Generally, these forest management principles are divided into either even-aged or uneven-aged management. By design, these systems attempt to mimic the effects of naturally occurring events such as storms and individual tree mortality, which change forest species composition.

Even-aged forest management techniques are patterned after catastrophic events such as wind, fire, ice storms and infestation by insects or disease, which all cause much destruction to the forest. After these events forest regeneration occurs in the damaged stands, where new trees are all about the same age. Two even-age management practices are known as "clearcutting", which removes all the trees in a timber stand at once, and "seedtree" cuts, which remove most of the trees while leaving only a few good seed-producing trees that are harvested after a new stand is established. Another method of even-aged forest regeneration which is used for a particular species of tree that needs some shade to become established is called a "shelterwood" system Typically, a shelterwood cut removes 40-60 % of the forest canopy, allowing a new forest to become established in the shade or shelter of the older trees, which are harvested later. Often foresters deviate from the natural regeneration expected with even age management by hand planting genetically improved trees in row plantations, which are easier to inventory and to harvest, and which also yield maximum fiber production for pulp or fast-growing sawtimber. These forests are often managed on rotations that are harvested at the point in time where growth of the trees begins to decline.

The Forest Service defines an uneven-aged forest as one that grows for many years in a relatively undisturbed condition, where trees die individually or in small groups of natural senescence, and where the resulting open spaces are replaced naturally with younger trees. The result is a multilayered canopy in the forest, composed of trees of different ages. Uneven-age forest management techniques

The Two Management Systems are...

EVEN-AGED AND UNEVEN-AGED MANAGEMENT.

To imitate nature's methods of regenerating forests, different cutting practices are used for each



CLEARCUTTING

Removes all trees larger than one inch in diameter from a specific area, except trees reserved for special purposes, for example, wildlife habitat. Maximizes available sunlight for new tree growth.



EVEN-AGED MANAGEMENT

SHELTERWOOD CUTTING

Forty to sixty percent of the trees are removed, allowing new trees to become established in partial sunlight under the shelter of the remaining older trees. Following establishment of new trees, remaining older trees may be removed.



SEED TREE CUTTING

Removes most of the trees in one cut, leaving a few, well-spaced good seed producers over the area.



UNEVEN-AGED MANAGEMENT

GROUP SELECTION

Small groups of trees are cut in one-quarter to two acre sizes. Creates larger openings for regeneration of trees which require partial sunlight.



INDIVIDUAL TREE SELECTION

Trees of various sizes, dispersed throughout the forest, are individually selected for cutting. Creates small openings for establishment of shade-tolerant species.

Forestry continued

include individual, "single-tree" selection, or "group" selection. In group selection, trees are removed in small groups to mimic what is often referred to as a "canopy gap", which occurs naturally when the forest canopy is torn open by a large dead-fall or wind-thrown tree. Individual tree selection involves harvesting single trees of various sizes throughout the forest.

Uneven-age tech-niques open the forest canopy

and subject the forest floor to partial sunlight, as opposed to even-age techniques that result in full sun. Tree species such as southern yellow pines or hardwoods like yellow poplar can thrive in full sun and are called shade "intolerant" species. Therefore, forest management aimed at these species usually employ evenage techniques. Examples of shade "tolerant" tree species would be american beech or dogwood, which grow well in the understory of an unevenage forest. Some species such as white pine and white oak are "intermediate" in shade tolerance. Although there is some difference of opinion here, it is generally accepted that these tree species can be regenerated by either even or uneven-age management.

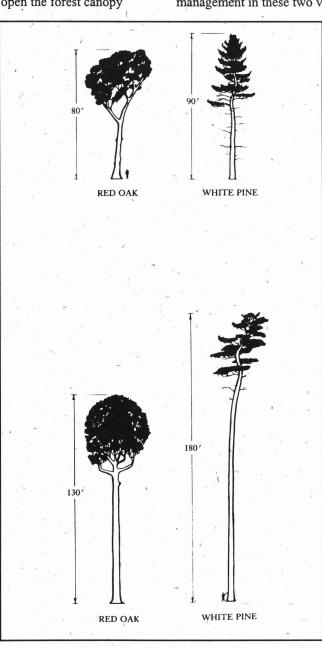
Of course there are a myriad of other factors related to choosing a silvicultural method of harvest and regeneration. This is what makes forestry so interesting and complex; no two forests are alike. Other things to consider are seed sources and seed types, seed bed preparation, species that require fire for regeneration (serotinous species), stand maturity, soil type, forest type, aspect (orientation toward the sun), tendency to sprout side branches after harvest (affects timber quality and is called epicormic branching), climate and countless other factors.

All of these factors together require that forest management techniques fits

into an ecological context. The Forest Service classifies areas with various ecological characteristics into "ecoregions". For example, we in the Chattooga River watershed are in a mountainous region with high rainfall, and where tree stands exist in a predominantly closed, multi-layered canopy forest. In contrast, the forests of the coastal plain ecoregion around Savannah, Georgia, are open forests interspersed with plain-like savannahs. Forest management in these two very different areas must reflect

distinct natural processes in order to maintain an ecosystem. Here, fire would be the best example. In the coastal plain, the longleaf pine/wiregrass ecosystems must have cyclic fire to thrive, whereas in the mountains, fire does not play nearly as important role because of the higher rainfall.

Both traditional forestry and new forestry consider natural ecological patterns and factors. But there is one overriding factor that separates new forestry from traditional forestry: the decision about the ultimate values for which a forest is managed. Traditional forestry tends to approach forest management from the perspective of the monetary values to be derived from commercial species. New forestry looks at the whole forest system that occurs naturally in a particular place, and how the ecosystem fits into a niche in the surrounding landscape. With traditional forestry, the prime objective is a timber product. With new forestry the goal is to maintain a viable forest ecosystem, and commercial timber is one byproduct. In today's society there is a need for both systems. Conservation biology tells us where a particular system best serves the needs of society and ecological function. Once people understand that this idea of the need to manage for different values in different places in the landscape, the net result is conflict resolution.



Top: Profile of trees in a second growth forest.

Crooked, branchy trunks are typical of trees grown in open land returning to forest. Bottom: Profiles of trees grown in virgin forest. Straight limbless trunks are characteristic of trees grown in dense woodland.

Re-printed from Timber Frame Construction by Sobon and Schroeder, with permission from Storey Communications, Inc., Pownal, Vermont.

endorses the emerging

science of conservation

bedrock of conservation

biology is a theoretical

wildlands or core areas

that provide a place for

viable populations of sensitive plants and

animals, to areas of

concentrated human activity. Core areas are

surrounded by buffer

zones, next to a matrix

biology as a way of

with nature. The

model of human

from a scale of

activity across the

landscape, ranging

attaining this balance

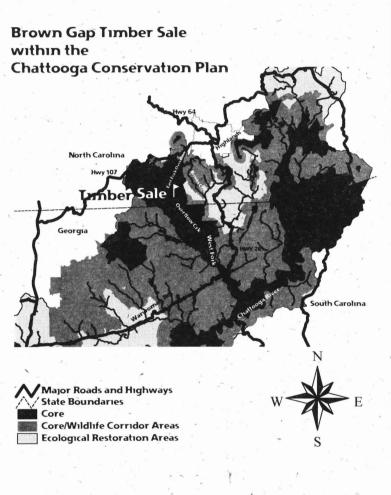
CRWC Buys Blue Valley Timber Sale

Buzz Williams

Yes, you did read the headline correctly. On January 14, after almost two years of negotiations, I signed a contract with the Forest Service on behalf of the Chattooga River Watershed Coalition (CRWC) to purchase and harvest a boundary of timber at the headwaters of the

Chattooga River watershed, near Overflow Creek within the Nantahala National Forest in North Carolina. At first blush, more than a few would ask: Why would an organization with a history of opposition to almost all timber sales proposals on public lands now purchase and further, actually conduct the logging operations in such an ecologically sensitive part of the Chattooga watershed? But for those familiar with the CRWC and our mission, this step will come as no great shock once the facts are known. In fact, this agreement has more to do with a shift of position within Forest Service management. The story of this first-ofa-kind project by a conservation group will be chronicled in two parts, since the actual timber harvest will not begin until next fall. In this issue of the Chattooga Quarterly, we begin with the account of how this unusual project evolved.

degraded and abused, by implementing management regimes which embody and incorporate processes to revitalize life-supporting energy cycles. These critical. cycles replenish soil nutrients, provide clean water and air. and work to maintain sufficient habitats which facilitate a healthy process of adaptation in response to changing environments for all plants and animals. The Coalition



Map by Cindy Berrier

The foundation for all of our program activities begins with a basic adherence to a specific conservation philosophy. The CRWC was founded to promote the restoration of a native ecosystem, and to work whenever possible with the Forest Service, the agency that manages 70% of the watershed, to achieve this goal. We also believe that humans are a part of any ecosystem and therefore, we embrace the Leopoldian philosophy that the greatest tenant of conservation is to achieve harmony with the natural world. It is also our belief that humans can play a very important role in restoring lands that have been

of lands where people live, work and grow food. Within this system core areas and wildlife corridors are generally left alone to develop naturally, and to provide forest interior habitat and old growth trees. No new roads would be built here, and in some cases roads would be obliterated. Timber harvesting would be allowed only where roads exist and would be conducted under the strict guidance of scientists trained in landscape ecology and conservation biology, with the aim of restoring the native forest. In buffer areas, forestry techniques could be applied with new forest management techniques and guidelines to respect and preserve the whole compliment of species that exists in that

particular ecosystem. Within the parameters of conservation biology, most national forest land would be classified as either core areas or buffer areas for ecological restoration. More intensive forest management could occur on the private land in the matrix.

Forest management activities are endorsed by CRWC within the framework of the Chattooga

Timber Sale continued

Conservation Plan, which outlines a strategy to implement the tenants of conservation biology on both public and private lands by way of positive incentives. We have asked the Forest Service to formulate an alternative for the revision of our National Forest Management Plans that would embrace forest restoration based on conservation biology and the Chattooga Conservation Plan.

Recommendations in the Plan call for a new way of using forestry, and to center on a holistic value system where the objectives of any forestry activity are geared to the maintenance of natural processes and ecosystems—as opposed to a traditional, commercial species approach.

To date the Forest Service has acknowledged this concept through their own Ecosystem Management Initiative, but they have failed to implement truly significant measures to restore the native forests of the Southern Appalachians, which have been severely degraded by past abusive forest management practices. This can be both illustrated and explained through a careful look at existing Forest Plans. These outdated Forest Plans are directing the agency to meet widely

The idea was to purchase the sale and to contract with horse loggers to cut the timber, under our supervision.

acknowledged unsustainable timber targets, which are now scheduled for revision in six of our Southern Appalachian national forests. Until these powerful directives are changed based on new forestry concepts, future timber sales will certainly remain *status quo*.

Nonetheless, public opinion boosted by emerging scientific evidence of declining forest health is pushing the agency toward innovation. In the Spring of 1995, the Highlands Ranger District of the Nantahala National Forest proposed a research project for the Blue Valley Experimental Forest, located east of and contiguous with the Overflow Wilderness Study Area. The project was announced in a public scoping notice as a combined effort with the Southern Experiment Research Station "to develop a research program to provide the scientific information on white pine and hardwood regeneration". The project would be conducted on 108 acres comparing two harvest techniques; "even-aged" and "uneven-aged" management.

One sale area would incorporate a 63-acre cutting unit using a shelterwood system, where several areas would be harvested and portions of the forest would be reserved

at various degrees of density, from 30 to 60 square feet of basal area per acre. Some of the "shelterwood cuts" would be burned during the dormant season to determine how forest regeneration is affected by fire.

Approximately 45 acres were to be harvested using single tree selection. The harvested stands would be evaluated for possible post-harvest treatments including fire or herbicides, to insure regeneration of *selected* species. The proposal then specifically stated that the purpose of this technique would be to determine "the overall effects on regeneration and the applicability of single tree selection in white pine stands." The proposed rotation age was 80 to

100 years.

The CRWC evaluated the proposal after extensive consultation with Board of Directors member Dr. Robert Zahner, who is a distinguished forester and long time resident of the Highlands area. Our subsequent written comments objected to the proposal, based both on field examinations and its relevance to our Chattooga Conservation Plan. Our first concern was that the area fell within a core area as prescribed in our Conservation Plan. The CRWC strongly

suggested that a more fitting use of the Blue Valley Experimental Forest would be for research to further the restoration and expansion of the native forest towards a diverse mixture of tree species, in an uneven-age condition. However, we felt it would be a starting point to negotiate the implementation of restoration forestry in a place where a road already existed.

Specifically, Dr. Zahner pointed out in his comments that one of his major concerns with the proposal was its emphasis on a single species. He recommended rather that the Forest Service emphasize a technique that would "gradually remove the pine overstory, releasing the natural hardwood components in the mid- and understories, thus moving the forest to a more natural condition of mixed white pine and hardwoods".

In June of 1995 an Environmental Assessment was prepared for the project where our comments were dropped from further consideration, "...as they were outside the scope of the decision". Nonetheless, we chose not to appeal the decision since at the time we were in a mode of "triage" and occupied with major appeals of intensive

Timber Sale continued

timber harvesting projects elsewhere.

Later in the Winter of 1996, we conducted a Horse Logging Workshop at the Hambidge Center in north Georgia, to demonstrate environmentally sensitive logging in order to salvage timber damaged by Hurricane Opal. The workshop was attended by Forest Service officials, who decided to try a small horse logging sale on the Nantahala National Forest. The idea was to compare horse logging to a conventional mechanized operation on a similar site. The area chosen was the Brown Gap unit in the Blue Valley Experimental Forest, within the earlier proposed sale.

Later that year the sale was offered for bid, and there were no takers. At that time we made a decision to negotiate with the Forest Service to modify the sale in order to make it more palatable to those in the horse logging business. This seemed to be an opportunity to collaborate with the Forest Service, who were showing signs of flexibility.

Several field trips later resulted in an agreement to drop portions of the sale on steep slopes, leave additional residual hardwoods and to also leave 15 to 20 trees above

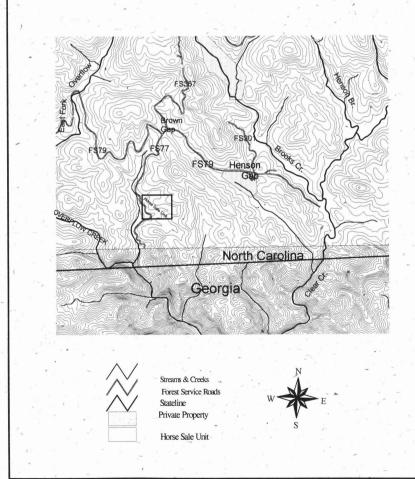
24 inches DBH (diameter breast height) for old growth retention. Forest Service personnel also seemed willing to acknowledge the idea of promoting the restoration of a native forest using an ecological classification that had been developed earlier by the Chattooga Ecosystem Management Demonstration Project, but which had not been incorporated into management on the ground.

Once the sale had been modified we began thinking about taking the next step, which was a plan to further other program objectives. The idea was to purchase the sale and to contract with horse loggers to cut the timber, under our supervision. Next, we proposed to hire a portable band sawyer who would cut the timber on site. By using a portable band mill on site we would eliminate a haul cost. Further savings would result since a bandmill saws a smaller kerf (amount of wood taken out by the saw) to produce an "over-run" of total lumber sawn. This would allow us to pay logging crews more money to implement techniques to protect the soil and residual trees. These techniques will include directional felling, and the use of a devise called a "skipper" that looks somewhat like a sled to elevate the butt-end of the log off of the ground, protecting the site from erosion.

We propose to sell this timber in the community as large beams, to promote jobs locally in the timber frame home building

industry. This would add value to the product and reduce sawing time, since it takes less time to handle one big beam than it does to move several smaller beams. Timbers of high quality sawtimber also bring more dollars per board foot. In addition, timber framing promotes a product which lasts longer, and thus conserves our future supply of wood.

Finally, the purchase of the Brown Gap Timber Sale promotes our Conservation Plan while fostering a collaborative effort with the Forest Service and the community. If we are successful, we will contribute to the idea of new forestry and conservation biology. We will create a superior product and create jobs. Success will also move us more toward convincing the Forest Service to continue small, community based timber sales. Agencies will also be more inclined toward incorporating this system in the Forest Plan revisions, which are currently underway in the Southern Appalachians. But most importantly, we will leave a better forest than we started with by management with scientific design to restore a native forest. We have now taken a big step by purchasing the Brown Gap Timber Sale; it is truly a first in conservation history. This fall we will actually execute this plan. We need your support and help, so stay tuned!



Brown Gap Timber Sale GIS map by Cindy Berrier

CRWC Workshop Reminder

April 18th & 19th: Nature Photography

Instructor: John Womack, Dancing Trail Studios

John Womack of nearby Franklin, North Carolina, will teach this two-day workshop designed to speak to students of all ages and skill levels on the subject of nature photography. In addition to "the basics", John's workshop will emphasize the many subjective elements of artistic interpretation in photography, as well as how to make images that portray the photographer's feelings when exploring the natural world. John operates *The Dancing Trail Photographic Art Gallery and Studio*, and has written hiking guides as well as a manual entitled *Methods and Procedures of Outdoor Photography*.

*Limited: to 20 participants *Tuition: \$40. per person

* Course No. 0498

May 16th & 17th: Songbird Identification

Instructor: J. Drew Lanham, Assistant Professor of Forestry at Clemson University
"Songbird Ecology, Conservation and Identification Workshop" will present a survey of the birds of the South Carolina
mountains and piedmont, with an emphasis on Nectronical migratory conclude. This workshop will consist of two days

mountains and piedmont, with an emphasis on Neotropical migratory songbirds. This workshop will consist of two days of instruction. During the first day, participants will learn about the factors associated with population declines of Neotropical migrants and discuss steps that can be taken to conserve various species. The second part of this lecture will present a survey of the birds one would expect to encounter in the region. Bird habitat relationships in the Southern Appalachians will also be discussed. The lecture will include slides and/or recordings of 75-100 species. Emphasis will be placed on the identification of the 50 or so "easiest" birds. On day two, students will spend the entire time in the field learning how to identify birds by using point count methodology. By the end of the workshop, participants should be able to identify 25-30 species by sight and sound. J. Drew Lanham is an Assistant Professor of Forestry at Clemson University. Drew teaches courses on Woodland Ecology and Conservation Biology. His research interests include bird-habitat relationships, and the effects of forest management on bird communities.

*Limited: to 15 participants *Tuition: \$40 per person

Course No. 0598

June 5th-7th: Experiential Outdoor Education: "Reconnecting with Nature" Instructor: Teresa Wilson, Fisheries Biologist, Clemson University

Do you notice how you always feel better when you're out in the woods? Do you want to explore why? Do you want to learn to focus on Nature's wisdom in understanding yourself and coping with everyday problems? Join us for a two-day camping and community building experience in the Southern Appalachians (in or near the Chattooga River watershed), where you will learn to use your natural senses and the wisdom of Nature to support your personal wisdom, growth and balance. The Opening Circle will begin at 8 p.m. on Friday night, and the Closing Circle will be at 3 p.m. on Sunday.

Teresa Wilson has facilitated/co-facilitated several of these courses, and is currently considering pursuing advanced studies in the field of Applied Ecological Psychology.

Limited: to 20 participants Tuition: \$100 to 150 per person (depending on final group size). Tuition includes camping fees, meals, and Michael Cohen's book, *Reconnecting with Nature*.

* Course No. 0698

CRWC 1998 Workshop Registration

POB 2006, Clayton, Ga 30525 (706) 782-6097 (706) 782-6098 FAX

Date:	Company/Organization				
Name (s)					
Street/RT./Box					
City		State	Zip		
Home Phone ()	Work Phone ()		E-Mail	1	
Age (if under 18) Please register me/us for the following was	vorkshops:				
Workshop No. Title	Tuition		No. of Participants		Total
				1	
Please complete this form and mail to the	ne address above		* Total Tuition_	12.1011	
Make Checks Possible to CRWC World					

Jocassee Gorges Update

Buzz Williams

Last year, Duke Energy Corporation announced that it was selling the Jocassee Gorges, a 55,000 acre parcel of land that contains some of the wildest country in the Southern Appalachians. It is a keystone in the Blue Ridge Escarpment ecosystem, which holds the potential to restore enough native habitat to support a relatively intact natural area with most of its original components. The gorges are a refuge for migrating songbirds, and many unique Threatened and Endangered species of plants and wildlife. The Escarpment area abounds with breathtaking waterfalls and scenic vistas.

The good news was that Duke would be offering the land to federal and state conservation agencies. Now, the bad news is that efforts to take advantage of the offer are fragmented along political lines. In North Carolina, bearhunters and advocates for a state park are deadlocked, and are blocking funds for acquisition. The bulk of the area is the 32,000 acre piece that lies in South Carolina, where acquisition is almost certain through public and private contributions. But here, user groups are fighting over management

plans to maximize their own interests.



The Oconee Bell, shortia galacifolia, is a rare plant endemic to the Southern Blue Ridge Escarpment.

Below is an op-ed piece that I wrote, which was printed in several state newspapers, advocating management of the South Carolina lands of the Jocassee Gorges as a Heritage Trust Preserve. Our aim is to give people information to use in writing letters to the South Carolina Department of Natural Resources supporting this designation.

We at the Chattooga River Watershed Coalition, in concert with the citizens of South Carolina and indeed the nation, celebrate the acquisition of the Jocassee Gorges from the Duke Energy Corporation. Now is the time for the public to give input for designing a management plan for these 32,000 acres, which comprise one of the most significant core wildlife areas left in the Southern Appalachian Mountains. Without a strong public voice advocating a clear mandate to manage the area for that single quality that sets the Jocassee Gorges apart from almost any other place in North America, I am concerned that that quality will be significantly degraded. This unique quality is, of course, the richness of life which exists in the

Jocassee Gorges.

Since the early eighteenth century, scientists have recognized the unparalleled biological richness of the Southern Blue Ridge Escarpment with expeditions by famous botanists such as Bartram and Michaux to document and procure plant specimens. The Highlands Biological Station, in cooperation with many academic institutions as well as the National Science Foundation, has studied the Jocassee Gorges area for decades. The reasons for this unusual proliferation of plants and animals--such as the Oconee Bell and lungless salamanders--are mainly due to the historical absence of glaciation this region, and the isolated nature of the steep, rugged terrain which is

positioned at just the right spot in the landscape to receive abundant rainfall and a relatively mild climate.

For those of us who grew up in the area, this Eden was for a long time our well kept secret. The Gorges were used by hunters, botanists, fishermen, 4-wheelers, hikers, etc. For the most part, most of this use was fairly insignificant. There simply weren't that many people out there.

The greatest damage was done by the most recent owner, Duke

Energy Corporation, who buried many sections of the area's beautiful, natural rivers and much of the rich cultural heritage, beneath the lakes of Keowee and Jocassee. Then came Bad Creek, the "pump storage" impoundment which destroyed pristine wildlife habitat and also fragmented the native forests. Crescent Land and Timber Company severely damaged other parts of this forest with their "industrial strength" timber management.

I am not ashamed to admit my sorrow, and at times, even shed tears with each encroachment that slowly and methodically degrades the land of the Jocassee Gorges, which goes on almost unnoticed by a public placated with promises of ever greater economic prosperity. In my high school and college years, we watched as little orange stakes appeared in our favorite hunting and fishing areas around the Musterground. These stakes marked the roads that soon carried away the ancient forest. The timber was so big—I remember one picture of a small girl standing full height in the heart of an old poplar tree that was five feet across. The foresters wrote it off as a dying tree that needed to be harvested.

Jocassee Gorges continued

When the lakes backed up, they also brought more residents as well as tourists and lake fisheries. The Gorges were not our secret any more. This wasn't all bad, it also brought support for more protection of the pristine quality of the area. In the 1980's when Carasan Power Company from California threatened to build a power plant on the Horsepasture River, the courthouse in Brevard, North Carolina, was packed with hundreds of people all demanding that the developer's permit be denied. Indeed, the Horsepasture was subsequently designated as a National Wild and Scenic River. Then when Duke Power announced they would build another pump storage site at Coley Creek, the public rebelled. Today we witness the acquisition of the Jocassee Gorges, that is backed by overwhelming public support.

Today, unlike in days gone by, we must recognize both the inherent opportunities and the dangers that accompany this new turn in the ownership and management of this special place. To that end, as I have pointed out in a previous letter to the South Carolina Department of Natural Resources (DNR), there is great danger that the Jocassee Gorges area is about to be yet further degraded in the convoluted pursuit of "progress" and greater economic prosperity.

Let me explain. Governor Beasley, while basking in applause after announcing the acquisition of the Jocassee Gorges during the State of the State address, neglected to mention that he has removed all of the scientists from the DNR's Board of Directors and the Heritage Trust Advisory Committee and replaced them with individuals such as a real estate agent, and even a timber procurement officer for Stone Container Corporation, a company that has been cited by the Environmental Protection Agency for over one thousand violations of federal laws such as the Clean Air Act, the Clean Water Act, and the Emergency Planning and Right to Know Act. I recognize that the standing members of these governing bodies do include individuals of great integrity; however, with a clear absence of scientific expertise the management of the Jocassee Gorges area will be influenced by those now in power who hold an obvious vested interest for extraction and development,

The alternative is to designate the Jocassee Gorges area, all of it, as a Heritage Trust Preserve. This designation will do two things. First, it will place the land in a category of management that is reserved for lands which are "considered the most outstanding representatives of our state's heritage". This designation would still allow historical uses such as hunting and camping, and forest management. Secondly, this designation places the area in the hands of DNR's biological diversity section, which has the expertise to manage the area for the outstanding natural resources exhibited there.

Who makes this decision to give the Jocassee

Gorges the designation, as a Heritage Trust Preserve, which will allow the area to be used and also to be protected from over-development? This decision will be made by the DNR Board of Directors and the Heritage Trust Advisory Committee. Sadly, Governor Beasley has stacked the deck against such a designation. It has been reported that the Jocassee Gorges stand a "snow ball's chance in hell" of receiving the designation that would ensure that we can enjoy the area today without further degradation, as well as pass it on to our children.

I choose to think that a well informed public will demand that the Jocassee Gorges area receive the designation of a Heritage Trust Preserve, to protect it from heavy timber harvesting and over-development. The public could demand that qualified scientists have input on a management plan to restore the native forest. It is well known that in some cases cutting timber can be used to promote the recovery of a forest that has been degraded. The Jocassee Gorges, though in part degraded by past, heavy-handed management, can be used for our enjoyment as well as restored as a whole, intact ecosystem which can support all the diversity of life which God intended--only with a carefully guided hand.

The Jocassee Gorges could be managed as a great legacy for present and future generations; however, only if a loud voice from the public demands this. I urge you to act swiftly to make your voice heard. The acquisition of the Jocassee Gorges by the public, and the wisdom with which we use the area, has the potential to be one of the best or one of the worst conservation decisions of the history of our state, and nation. Don't sit on the sidelines and miss the chance to be a part of this opportunity. Act today and make your voice heard by public officials!

Your letters can make a difference. Please take the time to write in support of designating the entire 32,000 acres of the Jocassee Gorges tract in South Carolina as a Heritage Trust Preserve.

Write to:

Dr. Paul Sandifer, Director South Carolina Department of Natural Resources P.O. Box 167 Columbia, SC 29202

Knights Of Spain, Warriors of the Sun Book Review

Nicole Hayler

"For obscure reasons, the De Soto expedition excites strange passions in people." -Dr. Charles Hudson

A traveler through the upper reaches of the Chattooga River watershed may pause to take notice of a sign that proclaims "De Soto...near here". The historical marker bearing this



Mounted lancers and dog-handlers were among De Soto's army of approximately 600 men. The war dogs were used to attack and kill Indians; lancers overrode Indian warriors, inflicting heavy casualties. Drawing by Lawrence May.

message lies on highway 64, west of downtown Highlands, North Carolina, and was placed there in the wake of the report published in 1939 by the US De Soto Expedition Commission. Local enthusiasm for this claim also has been bolstered by an inscription that is chiseled into rock at the nearby Devil's Courthouse site on Whitesides Mountain. Here, carved in

Spanish, reads "UN LUEGO SANTA A LA MEMORIA". Dr. Robert Zahner offers a credible explanation for the origin of this mysterious inscription in his book, The Mountain at the End of the Trail, debunking the local myth that a member of Hernando de Soto's army carved this message while exploring the area around the year 1540. Further, Zahner notes the historical marker should read, "These Spaniards came nowhere near Highlands!", in agreement with the majority of modern historical and archeological scholarship.

In the year 1539, Spanish conquistador Hernando De Soto and his army arrived on the west coast of Florida on a quest to explore the American Southeast. They were in search of riches commensurate with those of the Inca Empire, and with hopes for gaining personal fame and establishing a lucrative colony in the New World. The exact path of de Soto's expedition has since been the subject of much study, conjecture and debate. One point of agreement is that reconstructing their journey has been a particularly difficult task.

One of the earliest maps designed to portray De Soto's route dates from the year 1584. Throughout the next four hundred years, many scholars have worked to establish a definitive outline of the De Soto expedition's journey.

Theories have been featured in the work of historians, archaeologists, naturalists, cartographers and anthropologists. Currently, a leading authority in this arena is Dr. Charles Hudson, Professor of Anthropology at the University of Georgia, who has engaged in studies to reconstruct De Soto's route for over fifteen years.

Dr. Hudson has applied much research in a new book, Knights of Spain, Warriors of the Sun (published in 1997 by the University of Georgia Press). Here, Dr. Hudson has conjured a fascinating image of the De Soto expedition, the people they encountered and the era in which they lived. He composes this story as a "braided narrative", that intertwines threads of archaeology, geography, anthropology, and several eye witness accounts. Hudson's narrative incorporates the complicated historiography of the De Soto expedition in a creative, seamless flow, which is connected to strong underpinnings in seventy pages of footnotes that relate hard evidence and documentation.

"What visitor to the forests of the southeastern United States has not imagined the native people who used to inhabit this landscape?" begins Dr. Hudson, immediately luring the reader into this long ago world. In the course of the book's beginning chapters, Hudson equips us for this journey through an animated discussion of what is known about the basic thought patterns and assumptions of the medieval "Spaniards", and the distinct "Indian" chiefdoms of the New World, that also includes a brief history of their social and political world views. These themes are explored throughout the story, developed in conjunction with the narrative that reconstructs the sequence of events occurring during the expedition.

In the "braided narrative" style, Dr. Hudson utilizes the primary, eye witness reports to color his descriptions of the native people that the expedition encountered, and the landscape they inhabited. Since De Soto was on a mission to seek out and exploit rich societies as well as plunder native settlements for food to sustain his army, there was considerable interaction between the Spaniards and the people of the Southeast's native chiefdoms. Knights of Spain, Warriors of the Sun focuses much attention on the remarkable details of these encounters over the four year period of De Soto's explorations. These details are abundant, as much of the expedition's course was determined through direct verbal communication between the Spaniards and Indians, through a Spanish translator and captive Indians. Also for most of the way, De Soto's army was either on the offensive or defensive against native settlements, and the cruel and gruesome details of these battles were duly recorded in the expedition's primary chronicles. Dr. Hudson narrates these episodes, while linking them to a larger analysis of the social, economic and political nature of the American Southeast.

A thoroughly absorbing element of <u>Knights of Spain</u>, <u>Warriors of the Sun</u> is Hudson's ability to cultivate the

Book Review continued



"In addition to their individualistic fighting, the Southeastern chiefdoms were capable of mobilizing large numbers of warriors and mounting coordinated attacks." -Pg. 21, Hudson. Engraving by Theodore de Bry, Americae, pt. 2, 1591. National Anthropological Archives, Smithsonian.

reader's participation through the juxtaposition of the familiar and modern with the sixteenth century Southeast. Throughout the book, he uses this technique to prompt imagination, engage the senses, and to facilitate the reader's thoughtful and linked transition between these radically different worlds: "To imagine the southeastern landscape as it was in the sixteenth century, one must begin by taking away some elements and putting back others. Some of what one must take away is obvious—the cities, towns and highways...the dams...plants introduced into the Southeast from other parts of the world...imported animals.... One

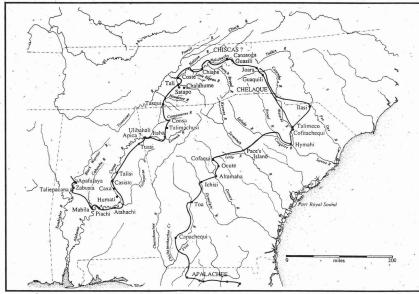
must put back the animals that are now extinct. The passenger pigeon, whose migratory flights once darkened southern skies, the flocks of boisterous green-and-yellow Carolina parakeets, the ivory-billed woodpecker... One must also vastly extend the range of the animals that are today almost extinct-the sly and furtive panther ... and the gregarious wolves... Most of all, one must put back the enormous stands of trees that today can only be seen as remnants of the great old growth forests that were cut down as American farmers moved west."

Aside from Dr. Hudson's lively, compelling and comprehensive discussion of this era in history, one must also decide: Are we persuaded by the evidence presented in Knights of Spain, Warriors of the Sun to believe Hudson's proposed route? Included in the book is a map that identifies this route along with known sites where sixteenth century European artifacts have been recovered throughout the Southeast, and there are significant parallels. There are also significant gaps, with a notable stretch being

along the route's proposed path through central Georgia and South Carolina. Dr. Hudson admits that even a combination of the primary chronicles of the De Soto expedition and known archaeological evidence "...did not furnish enough information to allow us to lay a line on a map with any degree of confidence". Hudson explains that in the course of the work that culminated in the book, he and his colleagues began to research the documentation of other Spanish explorers of the American Southeast, including expeditions occurring in the years of 1526, 1528, 1559 and 1566. Congruent descriptions of several native settlements emerged, which along with more recent archaeological discoveries helped confirm logistical parameters and define physical sites in support of Hudson's proposed route.

In the final, "Afterword" chapter of his book, Dr. Hudson outlines and

discusses the history of the different interpretations of the De Soto Expedition, acknowledging the work of previous scholars as well as his peers. Hudson advises us that his research is characterized by "interpretive reconstructions that aim for a best fit with available historical and archaeological information", and that his interests lie with "achieving successively better fits". In Knights of Spain, Warriors of the Sun, Dr. Hudson has produced a very convincing case and a landmark work. I'm sure that those who read this book will find the enigmatic path of the De Soto expedition more fully illuminated.



De Soto's route from Apalachee to Apafalaya, 1540. -Pg. 148, Hudson

From KNIGHTS OF SPAIN, WARRIORS OF THE SUN by Charles Hudson. Copyright 1997 by Charles Hudson. Used by permission of University of Georgia Press, Athens, GA.

Tributaries

Your Comments are Needed.

The Forest Service is asking for input on a proposal to revise regulations regarding the management of their transportation system (see Director's Page). This also gives us an opportunity to push for a reassessment of roadless areas that were excluded from the agency's Southern Appalachian Assessment. Currently, the Forest Service is proposing a moratorium on roadbuilding in inventoried roadless areas, which includes all RARE II areas

Alert! Georgia State Representative

Twiggs has introduced two bills in

the state legislature, both of which

streams by turning buffer zone

effectively deregulate protection of .

decision making over from the state

to local authorities. These bills are

that protecting trout habitat and

being supported by those who believe

water quality make it too difficult to

proceed with "development". Please

fax and/or call your state legislators

to voice your opposition to HB 1592

Lt. Gov. Howard: tel: 404-656-5030;

Speaker of the House Murphy: tel:

404-656-5020; fax: 404-656-5644.

and HB 1593.

fax: 404-656-6739.

of 5,000 acres or more, and in roadless areas greater than 1,000 acres that are contiguous with "wild" sections of a Wild and Scenic River. There are several areas in the Chattooga River watershed that would qualify for roadless status if requirements for recording road densities were fairly applied. These areas include the Five Falls and Thrift's Ferry roadless areas adjacent to the Chattooga River; the Overflow roadless area at the headwaters of the West Fork; and, the entire Rabun Bald roadless area. The Forest Service's proposal also allows us a great opportunity to ask the Forest Service to recognize the Chattooga Conservation Plan as an alternative for revising the Forest Plans for the Sumter and Chattahoochee National Forests.

Please write to the Forest Service in the Region 8 Atlanta Office and ask for the above areas as defined by the Chattooga River Watershed Coalition to be included in their inventory of qualified roadless areas. Endorsements the Chattooga Conservation Plan as an alternative for revising Forest Plans would also be timely. The address is: Elizabeth Estill, Regional Forester, 1720 Peachtree Road, N. W., Room 760-S, Atlanta, Georgia 30367-912.

Comments are due at the Forest Service's Washington Office regarding their proposed road policy (see above, and the Director's Page). Please write to endorse this policy, and ask them to use the principles of conservation biology to prioritize roads for decommissioning in wildlife corridors and core areas. Also, ask for a team of independent scientists with expertise in conservation biology, landscape ecology and ecosystem restoration to determine and peer review these recommendations. Suggest that the Forest Service recommend to the President and Congress that funds for this road decommissioning program be appropriated by transferring savings from the timber management program. The address is: Gerald (Skip) Coghlan, Acting Director, Engineering Staff, Forest Service, P.O. Box 96090, Washington, D.C. 20090-60-90.

A new ruling has been made by the 11th Circuit Court regarding Sierra Club vs. Martin, which formerly suspended several timber sales in the Chattooga watershed, as well as many other timber sales in the

Chattahoochee National Forest. On January 30, 1998, the Federal District Court in Atlanta issued a new ruling on the Sierra Club v. Martin lawsuit. Unfortunately, this decision denies all of plaintiff's claims concerning monitoring and inventorying requirements for USFS Sensitive Species, and grants summary judgment to the Forest Service. This will probably result in the implementation of a number of controversial timber harvesting and road building projects, most notably: Compartment 5 on Big Creek, and Compartment 59, adjacent to the Wild and Scenic

Chattooga River Corridor at the start of the river's "Section IV". However, the Tuckaluge Timber Sale will be held up, since the Forest Service has declared a moratorium on roadbuilding in roadless areas as inventoried in the Roadless Area Review and Evaluation (RARE II).

The Forest Service is now in the process of developing a plan to implement recreation user fees in all of the national forests in the Chattooga River watershed. If approved, citizens will have to pay to park in certain areas of the national forest, as well as to use picnic areas, hiking trails and other recreation resources on our public lands. Please write the Forest Service and tell them you are opposed to recreation user fees until they stop the timber sales that are heavily subsidized

by our tax dollars, which lose money for the tax payers who own the national forest. While this is the case, why pay more money for recreation on our public land? First, the Forest Service should demonstrate that they are fiscally responsible, and can use their budget for good stewardship of the land. Give them the example of roadbuilding and timber harvesting in the above sale areas, which were opposed by citizens who clearly saw the potential harm to the Chattooga River and Big Creek from below cost timber sales and roadbuilding in sensitive wildlife and aquatic habitats. To comment, you can write the Andrew Pickens and Tallulah Ranger Districts (addresses are below).

The Forest Service is planning a controlled burn for the Reed Creek area, near Highway 28 in Georgia. Part of this Corridor. Though we are not against all prescribed burning, processes must prevail. We need to oppose this burn, as it is areas in the Wild & Scenic Corridor. To comment, write the Tallulah Ranger District.

burn is within the Chattooga Wild and Scenic River we feel that the river corridor is a place where natural a dangerous precedent, where fire line building and vegetative manipulation could be damaging to the riparian

Attn: Dave Jensen, Tallulah Ranger District P.O. Box 438, Clayton, GA 30525.

Attn: Beth Merz, Andrew Pickens Ranger District, 112 Andrew Pickens Circle, Mountain Rest, SC 29664.

Member's Update

Thank you!

Many thanks to all of our members who renewed their membership dues, as well as those who generously donated goods and services. These donations are used to support the Chattooga River Watershed Coalition's programs, and to help cover the costs of publishing and mailing the *Chattooga Quarterly*. Below is a list of all of our recent supporters.

1998 Membership Renewals

Glenn Adam

Ethel M. & John L. Allen

Barbara/William Anderson, Jr

Davis Andrew

Rick Arflin

Baylor School

The Belk Company

Randy Bigbee

Randy and Susan Blair

Norris Boone

Margaret and Ben Brockman

John H. Brower

Richard and Elizabeth Bruce

Jennie T. Burrell

C.W. Carpenter

Dan Centofanti

Central GA River Runners

Mr. & Mrs.Kenneth Cleveland

Frances Allison Close

Mary Brockman Collins

Bettie Lee Combs

James M. Cole

Mark & Kathy Colwell

Frank Crane

Dr. A. Craver

Andy Crowe

William and Barbara Denton

Burnett DuBois

Nancy Farris

Gina Godfrey and Kevin Anderson

Greenville Natural History Association

Michelle A. Hall

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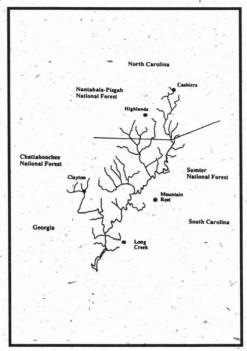
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Purpose:

"To protect, promote and restore the natural ecological integrity of the Chattooga River watershed ecosystem; to ensure the viability of native species in harmony with the need for a healthy human environment; and to educate and empower communities to practice good stewardship on public and private lands."

Our Work Made Possible By:

CRWC Members and Volunteers
Turner Foundation, Inc.
The Moriah Fund
Lyndhurst Foundation
Patagonia, Inc.
Town Creek Foundation
Merck Family Fund
REI, Inc.
Norcross Wildlife Foundation
JST Foundation
The Barstow Foundation
Conservation Technology Support Program



Goals:

Monitor the U.S. Forest Service's management of public forest lands in the watershed

Educate the public

Promote public choice based on credible scientific information

Promote public land acquisition by the Forest Service within the watershed

Protect remaining old growth and roadless

Work cooperatively with the Forest Service to develop a sound ecosystem initiative for the watershed

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