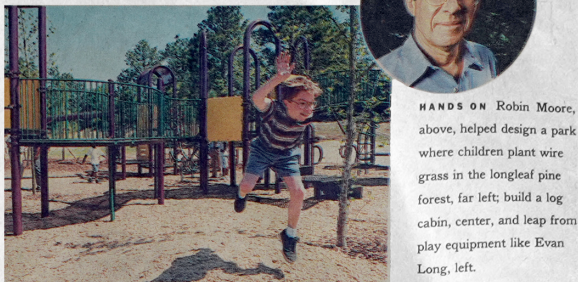


HUMAN NATURE



David R. Nicol for The New York Times (left), Bruce T. Cunningham Jr. (center), The Fayetteville Observer-Times (right), Bob Rives for The New York Times (right)



HANDS ON Robin Moore, above, helped design a park where children plant wire grass in the longleaf pine forest, far left; build a log cabin, center, and leap from play equipment like Evan Long, left.

Tutored by the Great Outdoors: A Greening of the Asphalt

By ANNE RAVEN

SOUTHERN PINES, N.C. — The playground at Southern Pines Elementary School used to be four acres of thorny, barren land and some rickety play equipment. "The kids used to fight every day," said Damita Nocton, a first-grade teacher at the school, which has 550 pupils in kindergarten through third grade. "They were confined to a little square of asphalt, and the rest was just sandspit and cactus."

Children called it the Desert. "We saw a lot of aggressive behavior, because they were bored and unhappy," Ms. Nocton said. But these days, the Blanchie Carter Discovery Park — renamed in honor of the beloved principal who retired just as renovations began — tells a different story.

At recess, the children fan out over "the purple monster," as they call a challenging but inviting set of play equipment where they can leap, hang, climb and run, blowing off steam and exercising those gross motor muscles. They can tear down the sandy track that circles the professional-grade soccer field. Or maybe they head toward the log cabin the third graders built, or to the blueberry maze planted by the first grade. Some might wander to the top of a grassy hill where the Earth Buddies meet. Or the pile of sand damped by the edge of the woods, looking for sharks' teeth.

This grand space is a work in progress, a collaboration of children, parents, teachers and community members, guided by Robin Moore, an urban planner who teaches in the school of design at North Carolina State University and has specialized in play areas for 30 years.

Mr. Moore is at the forefront of a growing movement in American education that seeks to reconnect children with nature. California has vowed to put a garden in each of its 8,000 schools, and has about 1,650 so far. Maryland encourages every new school or renovation project to include natural habitats that are accessible and are incorporated into the curriculum. Ohio, Florida, New Hampshire, Utah and Vermont have similar plans, and North Carolina is financing Mr. Moore's "Natural Learning Initiative" (www.naturallearning.com), based at North Carolina State, which at the moment is focused on helping child-care centers build creative outdoor learning environments.

A "green" schoolyard not only allows for safe, free play, but can be used as a giant, green classroom, where hands-on activities integrate math, science and the language arts. "The school greening movement is very big in Europe, but Robin is the strongest, clearest voice right now in this country," said Dr. Roger Hart, the director of the Children's Environments Research Group at the City University of New York. Dr. Hart is working in poor communities around the world to create green, safe places for children.

As the Federal Government pushes for higher test scores and "accountability" from teachers and school systems, and about a dozen states have halted or even canceled recess as too frivolous an activity for children, educators like Mr. Moore maintain that outdoor activities, whether directed or "free" play, encourage observation and creative thinking.

And though there are no comprehensive studies yet to prove that such environments improve test scores, schools like Southern Pines Elementary report a marked reduction in violence and fighting academic performance.

"Our incidents and fights have really gone down," said Mary Scott Harrison, the principal. "And our test scores have improved big time."

In four years, the percentage of children meeting or exceeding proficiency levels in math and reading rose to 79 percent from 60 percent, she said. The school is aiming for an

80 percent proficiency rate this year, she added, "which will make us a school of distinction in North Carolina." She called the pupils' performance remarkable, considering that many entering kindergarten "don't even recognize colors or know their numbers."

On any given day at Southern Pines Elementary, you may see children planting native grasses in the longleaf pine forest near the playground, peering at birds through a bird blind, making musical instruments from sticks or testing the acid-alkaline balance of water from a storm sewer as they collect data for a water quality project.

The park has become fertile ground for what Mr. Moore calls "natural learning."

"I'm intrigued by how this place has become a place of imaginative play," he said as, from a discreet distance, he watched children fooling around with logs and wood chips inside the pioneer cabin.

"You leave a little bit of looseness in the

Where trees grow, so do young minds.

environment, and the kids will adapt it to something," he said. Like pretending the cabin is a spaceship, and the pieces of wood are transmitters. "Hello! Hello! Coming in!" they shout as they run among the shrubs and trees behind the cabin.

One afternoon Mr. Moore watched a group of 7-year-olds, boys and girls, black and white, playing horse. "They were riding each other, galloping around that circle of logs by the cabin," he said. "It was very positive social action. And it doesn't happen on a hard place where kids are bored."

Mr. Moore, 62, grew up freely roaming the hills and woods of Kent in England, poking around old mines and abandoned military camps with his pals. They built underground forts and leapt from the pliable branches of coppiced trees. They helped with the haymaking. And as long as they got home for dinner in one piece, no questions were asked.

That's a far cry from children's play today, of course, where school and park administrators are constantly worried about being sued, and parents are anxious about kidnappings, drug abuse and violence.

Because so many parents work long hours, children spend most of their days indoors or in supervised activities.

"That culture of childhood that played outside has gone and been replaced by after-school programs," Dr. Hart said. "If you're not in a program, if you're poor it's TV, so you're trapped indoors."

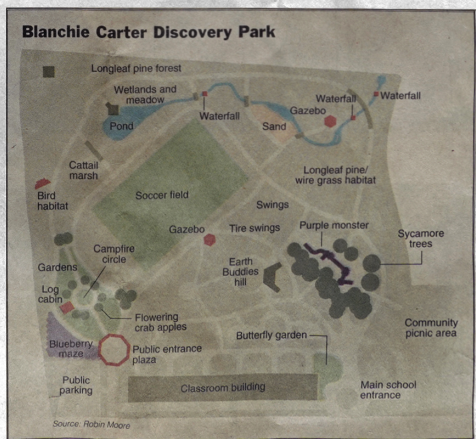
Mr. Moore studied architecture at London University in the 1950s, when the city was still full of "adventure playgrounds" — bombed-out World War II sites that children put to free-spirited use. Supervised by play leaders who looked out for their safety, they invented games and leapt from tall towers built from the rubble, exhilarated by the risks that Mr. Moore thinks are essential for agility and self-confidence.

"Adventure playgrounds never really caught on in the U.S., even though their safety record is exemplary," said Mr. Moore, who was the president of the International Association for Children's Right to Play for 15 years. "If it had, we would be engaged and have a stimulating environment where they can take risks in the healthy sense of the word, they are not going to have an accident. That happens when they get bored and start pushing each other around."

Here at Southern Pines Elementary, children are not to be leaping off homemade platforms — Mrs. Harrison keeps a close eye on safety and liability issues — but they aren't patronized with kiddie toys, as they build the pioneer cabin with real 18th-



STRIKING SPARKS Story time near the student-built log cabin.



MASTER PLAN Based on sketches and ideas of children, parents and teachers.

century tools under the guidance of parents, and use grown-up saws to cut logs for the campfire.

In the longleaf pine forest, a forester from the State Fish and Wildlife Service helps third graders saw down young scrub oaks to prepare for a controlled burn.

Now, Mrs. Harrison is requiring all teachers to create at least six lessons related to the environment outside the school doors

and is encouraging them to read the works of Howard Gardner, the Harvard cognitive psychologist whose theory of multiple intelligences includes sensitivity to the natural world.

All this seems light years from the day she met Bruce Cunningham and Ann Petersen, who had decided to send their daughter, Katie, to kindergarten at Southern Pines Elementary, with its ebullient 50-50 mix of

black and white children, rather than to the mostly white Episcopal church school in their own neighborhood.

Both lawyers, they were impressed not only with the school's racial mix, but also with its teachers and the charismatic principal, Blanchie Carter.

"Blanchie was a very good school, but it had a stigma," Ms. Petersen said. "Whenever the local paper reported what little bit of drug or violent crime we have here, it would say it was coming out of the school, 'which is known to be in a high crime district.'"

The incidents were actually limited, parents say, to a street three blocks from the school. And the only real danger that Ms. Petersen and Mr. Cunningham could see was in the rickety equipment on the playground and the thorny weeds that kept the children cooped up — and fighting — on the one clear patch of hot asphalt.

The couple called it "the pits," recalled Mrs. Harrison, who was then the assistant principal. So Ms. Carter promptly invited them to head up the new playground committee. "The initial plan was to raise \$40,000 for a piece of equipment, stick it into this desert and call it a playground," Ms. Petersen said.

But then Mr. Cunningham discovered the work of Mr. Moore and talked him into visiting the school. He arrived with slides of his "environmental yard" in Berkeley, a playground that children and grown-ups had transformed from an acre and a half of hardtop into a natural landscape complete with woods and stream. He laid out some of his ideas about natural learning and was struck by the spirit of community at Southern Pines Elementary.

So he agreed to do a master plan. Everybody wanted trees, grass and new play equipment. But Mr. Moore's plan considered circulation patterns — how people flow through a space — and made sure there were various active and quiet places all through the site.

Everyone worked together on the principles of universal design, so that a child like Evan Long, who has a learning disability, could leap from a low platform in the purple monster with as much joy as his friends who were jumping from higher spots.

Nidia Cosco, a play therapist trained in Argentina, guided parents away from the Swiss chalet they wanted for a playhouse. "Build your own culture," she counseled them, so they decided to build their own log cabin.

Mr. Cunningham recalled that when he suggested putting snow fencing around the young sycamore trees the children had helped plant near the play equipment, Mr. Moore shook his head and said, "Get each class to adopt a tree, water it, measure it, and you won't have any trouble with vandalism."

Ms. Nocton has watched her first graders become more observant as they have planted a bird habitat and a butterfly garden. "They bring me things, like seedpods, shells and feathers," she said. "They tell me about a special place where they heard a bird singing. They are more respectful — they want to take care of the environment."

The violence plummeted as soon as the new park opened. "Before, they didn't value the school as much," she said. "They didn't have a sense of ownership. Now they are actively involved in its development."

Made Davis, a counselor for the school who has worked in this neighborhood for 15 years, has noticed an increased sense of pride among blacks in the community. "More families going to the schoolyard to jog or walk. She finds herself using the park during counseling sessions with troubled children, 'because it is a serene, peaceful environment and they are more subject to opening up.'"