

From Hymns to Hypotheses: AAAS Black Church Project Brings Science to Youth

The 3-year-old girl named Angel picked up a magnifying glass and stared with a goofy, exaggerated eye at her pig-tailed friend across the table.

"Oooo," she squealed. "I can see you. Here," she ordered, thrusting the scientific instrument at the other girl. "Look!"

To witness budding scientific curiosity like this would be encouraging in any setting. But thanks in part to the American Association for the Advancement of Science (AAAS), Angel and her friend are among thousands of black children across the country whose interest in math, science, and computers is being nurtured in a place far more accustomed to hymns than hypotheses: the local church.

Since 1986, staff members of

the AAAS Black Church Project have collaborated with black churches in a grassroots effort to fight scientific illiteracy among minority youth.

Project members travel the country conducting workshops and providing educational materials for church groups interested in learning hands-on science and math exercises that they can use in their non-religious education programs.

So far, more than 500 churches have gotten involved, says program director Yolanda George, including New Samaritan Baptist Church in Washington, D.C., where Angel attends a daycare program.

On 8 and 9 March in Birmingham, Alabama, the project will host the first of five regional

workshops with the goal of attracting 180 additional churches. As in previous trainings, the churches selected for the regional workshops will then be urged to pass along what they learn to other church groups in their areas.

Despite philosophical tensions that tend to divide religion and science in this country, AAAS program associate Treopia Washington, co-coordinator of the Ford Foundation-funded project, says black churches are ideal partners in science education efforts.

"Up until the 1960s, I'd say the emphasis in black churches was still on saving souls," says Washington. "But then they also began dealing with social issues" plaguing their communities, such as poverty, homelessness, and lack of educational opportunities.

In the project's 1989 report, *Saving Minds: Black Churches and Education*, more than half of the 378 black churches responding to a survey reported offering nonreligious educational programs, such as tutoring, preschool/day-care services, field trips, scouting, and college entrance workshops.

"Most churches see themselves now as having a mission to save [black] youth," says Washington.

"Working with community-based groups is more challenging in some ways than with [more established] institutions," she adds. "There's no one system to work through. But frankly, I've been most successful with community groups because once they get on the bandwagon, they're committed. And they're not bogged down in bureaucracy."

In fact, says Washington and other AAAS staff members working on the project, the Black Church Project seems to have a life of its own.

AAAS project co-coordinator Dara Prout recalls a church workshop in Dublin, Georgia: "At first they said there'd be 15 participants, then 50. When [our staff] arrived, more than 100 people were at the church. Some had driven more than an hour to get there."

Inspired by what they learn, many AAAS workshop participants go on to start their own programs or form alliances with local science practitioners, says Washington.

"There's probably a lot more going on outside the official project than inside," she says. "People just want to join in."

Contact the Black Church Project at AAAS, 1333 H Street, NW, Washington, DC 20005. ♦

The Minister Who Loved Science—A Success Story

At workshops given by the AAAS Black Church Project, the hands-on exercises participants learn are simple experiments with batteries and bulbs, soap bubbles, floating objects, and toothpicks. Yet the impact is profound, says project co-coordinator Treopia Washington.

"Once the adults get going, we can't get them to stop," she says, laughing. "It almost breaks your heart to see the joy—they didn't get this kind of science education as kids."

Reverend Robert O. Dulin, Jr., is a case in point. The minister of Metropolitan Church of God in Detroit, Michigan, is one of the project's staunchest supporters.

Dulin runs a computer room at the church with six computers he received through the AAAS/Apple Computer Project and he works closely with Detroit's science center and with Wayne State University professors on science workshops for the city's minority population.

Such rich enthusiasm, he says, comes from a background poor in science. "In rural Kansas, where I grew up, I was the only black student who took chemistry," he says. "I took advan-



Sharon Farmer

Ministers and a church member learn math with toothpicks at Black Church workshop.

tage of what I could, but it just wasn't there."

When AAAS flew him to its annual meeting in San Francisco 2 years ago, says Dulin, he went on a field trip to a local science museum.

"I spent most of the day watching kids playing with exhibits," he recalls, "and I found myself becoming very angry. My church gave me a lot when I was young, but it didn't give me this."

"I think whatever can be done to help someone achieve their highest potential [amounts to] religious education," says Dulin. "And that includes science." ♦

In Brief

■ Organizers of the AAAS Pacific Division's annual meeting (23 to 27 June in Logan, Utah) are **calling for papers**. The deadline for abstracts is 31 March. For more information, write to: Pacific Division AAAS, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118.

■ Groups of three AAAS Fellows may **nominate other AAAS members for election as Fellows**. (At least one of the three sponsors must be unaffiliated with the nominee's institution.) Fellows are those AAAS members who have distinguished themselves on behalf of science.

Nomination forms are available from the AAAS executive office: 1333 H Street, NW, Washington, DC 20005; 202-326-6635. The deadline is 7 June. In addition, the *Directory of AAAS Fellows* is available from AAAS Books, P.O. Box 753, Waldorf, MD 20604 (member price: \$9.95, prepaid).

■ The first **Robert C. Barnard Environmental Science and Engineering Scholarship winners** were announced 19 December 1990 at the 10-year anniversary celebration of the AAAS Environmental Science and Engineering Fellowship program. The \$3000 scholarship goes to an outstanding Environmental fellow.

Sharing the 1990 prize are Luz Claudio of the Albert Einstein College of Medicine for her analysis of the current state of in vitro testing in neurotoxicology, and Linda Kinkel of Alcyon Environmental, a private consulting firm, for her research into the impact of wetlands loss on nongame birds. ♦

"Garbage Man" Wins AAAS Public Understanding Award

"It's not always my choice," says University of Arizona archeologist William Rathje about his popularity with the press. In fact, says the 1991 winner of the AAAS/Westinghouse Award for Public Understanding of Science and Technology, "I spend an awful lot of time trying to avoid the media so I can get my work done."

Rathje caught the media's imagination in the mid-1970s when he began systematically studying fresh garbage in order to understand the true scope of the nation's solid waste problem. By 1987, he was orchestrating archeological digs at landfills.

His "Garbage Project" data have debunked myths (for example, paper, not plastic, takes up the most landfill space by weight) and elevated the level of science in environmental policy-making.

Just as importantly, he has managed to communicate his findings to a public increasingly hungry for accurate environmental information.

"At first, the media treated us like a joke," says Rathje. "Certainly we see the humor in what we

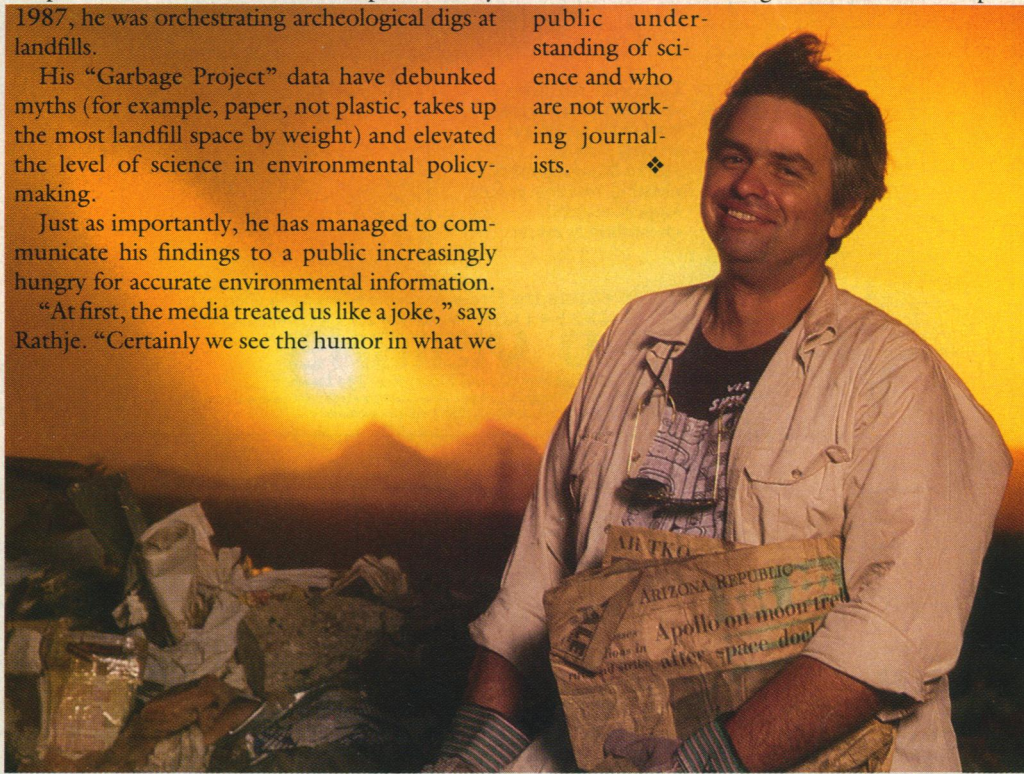
do. But we learned how to explain things so our serious results would be reported."

Rathje speaks before school audiences and on radio and television programs, and he has written for such publications as the *Atlantic Monthly*.

"I think it's extremely important to communicate the results of scientific work," says Rathje. "It shows people that money spent on science really has some payoff and relevance to their own lives."

Funded by the Westinghouse Foundation, the award comes with a \$2500 prize and recognizes scientists and engineers who have helped

public understanding of science and who are not working journalists. ♦



Alan Levenson

Numa to speak at AAAS Meeting

Shosaku Numa, the molecular neurobiologist who pioneered the use of genetic engineering techniques in the study of ion channels, will be the plenary speaker at a 3-day seminar on neuroscience at the 1991 AAAS annual meeting (14 to 19 February) in Washington, D.C.

Numa's 16 February talk on the function of neurotransmitter receptors and ion channels will be the 1991 John P. McGovern Award Lecture in the Behavioral Sciences, an annual AAAS honor that comes with a

\$3000 stipend.

Ion channels are a hot topic. Until recently, not much was known about the structure of these proteins, which control the movement of ions across the surface of nerve membranes and play a key role in exciting the nervous system into action.

But that was before Numa and his colleagues learned how to clone certain ion channels, enabling them to study the proteins in much greater detail.

"Ion channels are instrumental in many kinds of therapeutic interventions," says Kurt Beam, a neurobiologist at Colorado State University in Fort Collins

who has collaborated with Numa. "Calcium channels, for example, are critical to such things as hypertension and certain effects of stroke."

Sessions at the 16 to 18 February seminar will include:

■ A look at the changes that occur in neurons during development and learning;

■ insights into olfaction and taste; and

■ the molecular basis of such diseases as Alzheimer's disease.

There is a separate registration fee for the seminar in addition to the annual meeting fee. Contact Michelle Games, AAAS meetings office, 202-326-6440. ♦