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INSIDE: A LOOK AT A FULLDOME ADVOCACY ORGANIZATION
PLUS: HEALING THROUGH HANDS ON SCIENCE AND SCIENCE
LEARNING OPPORTUNITIES IN DIORAMAS

BRINGING THE MISSION TO THE COMMUNITY: STATE MUSEUM OPENS A SATELLITE IN AN UNDERSERVED RURAL REGION

By Emlyn Koster and LuAnne Pendergraft

Introduction

As museums endeavor to diversify and grow their audiences to be more representative of their communities, students and families defined by socioeconomic criteria and variously referred to as at-risk, disadvantaged or underserved are a high priority. With proactive measures that include reduced or free admissions and special access programs, institutions gradually strengthen their meaning and case for support, and sometimes so in transformative ways.

An example was the systemic state-wide partnership developed at Liberty Science Center to provide New Jersey's at-risk schools and communities with onsite, offsite and online science learning and teaching programs at no charge to them (Koster and Baumann, 2005; Koster, 2007). Begun in 1997 and continued through the 2005-07 temporary closure of the Center during its major expansion and renewal project, this program was supported by both major political parties in New Jersey with annual supplementary appropriations reaching \$6.6 million. An independent program audit in 2005 by WestEd of Washington, DC, concluded that Liberty Science Center was providing "a far-reaching return on New Jersey's investment". The Center's community-driven philosophy next became evident in its immediate and multifaceted involvement in the region's arduous recovery from the terrorist attacks on the World Trade Center in New York City across the Hudson River, one mile away, on September 11, 2001 (Gaffney, Dunne-Maxim and Cernak, 2002).

North Carolina Museum of Natural Sciences

Founded in 1879 by the North Carolina Legislature, the North Carolina State Museum of Natural History in Raleigh, the State capital, was initially guided by wildlife biologists and taxidermists. Part of the Department of Agriculture, its growing focus on nature, natural history and the economic context of natural resources became enriched by education and volunteer programs. During 1990-2012, and with the institution by then renamed the North Carolina Museum of Natural Sciences and switched to the Department of Environment and Natural Resources, the Museum embarked on a two-phase expansion to focus on the questions of 'what do we know?' with a North Carolina focus

and then 'how do we know?' with a global research focus.

In 2013, strategies to reap the maximum dividends from the cumulative volume of public and private sector investments became the institution's focus. Propelled by an updated mission to illuminate the interdependence of nature and humanity, the Museum is both a major contributor to knowledge about the natural world in partnership with universities and a major educational resource to schools and the public. Outreach to the State's underserved rural communities and to students with disabilities as well as the integration of the natural sciences with the humanities, social sciences and the workforce became rising areas of attention.

Extending Outreach

The NC Museum of Natural Sciences is the largest institution of its type in the southeast USA and the State's most visited museum with annual attendance approximately 10% of the State's population of 9.94 million. Its busiest days are those with featured experiences, each involving many community partners, with visitation twice to ten times the daily average. Yet despite its large profile and free general admission, the Museum needs extraordinary measures to reach underrepresented audiences. A key component of such strategies, learned over time from the above-mentioned Liberty Science Center experience, is that traditionally underserved communities, whose schools and families may be without a museum-going tradition, need a clear invitation plus easier access to resources. The tipping point for the NC Museum of Natural Sciences came about in November 2013.

What had been an empty and renovated bank branch building in Whiteville, 115 miles south of Raleigh, was assigned by the State Legislature to the NC Museum of Natural Sciences in 2000 with the intent for it to become a satellite Museum of Forestry to elucidate North Carolina's \$19 billion wood products industry. However, this purpose was never realized. Small temporary exhibitions occupying part of its ground floor drew low attendance; plus, Whiteville's population of 5,500 and its location away from interstate highways thwarted the initial vision.

The NC Department of Commerce annually ranks the State's 100 counties based on economic well-being. The 40 poorest counties are designated as Tier 1 (one of which is Columbus County, where Whiteville is located, which currently ranks 11th), the next 40 as Tier 2, and the 20 least distressed as Tier 3 (the most affluent of which is Wake County which contains the State's Research Triangle and Raleigh). This system is incorporated into various state programs to encourage economic activity in the most challenged areas.

In November 2013, a status review by the nonprofit Friends of the Museum of Forestry with senior staff from the NC Museum of Natural Sciences and the State Government unanimously decided to pursue a new vision for the underutilized building. Replicating proven types of indoor laboratory and outdoor nature playspace environments at the headquarters Museum and its nearby Prairie Ridge Ecostation, this meeting excitedly imagined a nature learning center for children in school and family settings for an underserved rural region as a superior use of available inside and outside spaces. Over the ensuing months, this scenario gained wide support and became a reaffirmed integral part of the NC Museum of Natural Sciences in the State's 2014-15 Budget with a proviso that the local Friends organization raise \$100,000 of extra funds during the first fiscal year as confirmation of the community's interest.

During 2014 as the Museum looked forward from its consuming capital phase, the whole organization engaged in waves of debate to arrive at definitive statements of the Museum's history, mission, core values, tagline, and form-follows-function goals (a refined strategy to achieve a 2020 vision of an even more compelling state of the Museum's community value to environmental stewardship and educational innovation is the next step). The task force who worked on core values—comprised of twenty nominated members spanning 2-30 years of service across the organizational structure—concluded first that the Museum is propelled by distinctive, service-driven ways of thinking, acting and reacting. The task force then unanimously arrived at a three-layer integrated suite of the Museum's values: foundation (integrity, professionalism and commitment), approach (inclusion, innovation and collaboration), and outcomes (engagement, impact and sustainability). When task force members presented their work at a Museum professional development day a few weeks before hosting the ASTC conference on October 18-21, both they and the audience were full of emotion. The teamwork to design and open the NC Museum of Natural Sciences at Whiteville was poised to become a poignant display of the institution's core values.

Between November 2014—right after the NC Museum of Natural Sciences hosted the ASTC annual conference—and January 2015, a cross-functional task force designed the new experience in Whiteville. Chaired by the second author with a mandate to limit the repurposing expenses to the \$100,000 raised by the Friends, its experienced members represented administration, facilities, exhibitions, digital media, onsite/offsite/outdoor education, and marketing and communications, each frequently traveling back and forth with overnight and multiday trips. The four Whiteville-based staff members embraced the programmatic shift, and the board of their local Friends organization spurred the transformation with enthusiasm and fund-raising progress. That a success story was in the making was palpable: the Museum's core values were in a turbocharged state of application.



Figure 1: A former bank, the North Carolina Museum of Natural Sciences at Whiteville.

Opening events in Whiteville were scheduled for February 27-28, 2015. A Friday evening by-invitation reception was attended by the entire range of local and state officials and community leaders along with the satellite's local board, staff and volunteers. A video greeting of congratulations from Governor Pat McCrory of North Carolina was shown. The gallery space swelled with 180 guests, a total that exceeded what was already an impressive response to invitations, who then engaged with the range of new programs and activities which were unveiled. 10 am on Saturday was the grand public opening ceremony, an event surrounded by much local buzz. Local and statewide elected officials, school superintendents, and community leaders along with families from across the region, gathered to celebrate this event and engage with the range of hands-on science and nature-based learning opportunities. Science Fair winners from local elementary schools were selected to cut the ribbon—a natural floral vine—while music from the East Columbus High School Jazz Band set a festive tone. By the end of the day, over 1,100 visitors had explored the Museum—20 percent of the Whiteville population.

Opening speakers included the State Senator and House Member for Whiteville, Mayor of Whiteville, President of the Columbus Chamber of Commerce and Tourism, Superintendents of Columbus County Schools and Whiteville City Schools, the Director of the NC Museum of Natural Sciences, and the President of the Whiteville Play Group. Elise Belmont of the Play Group delivered remarks that poignantly summed up the significance of the occasion:

"In a county where 41% of children live below the poverty line and many families must choose between gas money and groceries, having the Museum of Natural Sciences in our county seat is life changing for many of our young children and their families ... We are a relatively small community in terms of numbers, but we are great in our potential. Just look in the eyes of every, single child here today and you will see the promises of tomorrow. Some may wonder if the expense of a new museum in such a small town is worth the price, but I can say with much confidence, there is no greater place to invest in than a small town. Our tiny community and others like us give children the safety of many helping hands, the accountability of small numbers, the support of strong families, and the values of good Americans. Combine this with the NC Museum of Natural Sciences at Whiteville, contributions of the latest technology coming from the greatest minds, and our children have all the resources and support they need to make huge changes come from this small part of the world ... As our children are given the opportunity to express themselves and safely engage in their innate need for physical activity and mental stimulation, their self-esteem rises as they discover all they are capable of. Today's tummy-crawlers, happily exploring in their own safe environment, are tomorrow's microbiologists. Today's toddlers, banging pots and climbing trees, are tomorrow's engineers".

On March 2 The News Reporter of Whiteville ran an editorial titled "An amazing start for a new kind of museum":



Figure 2: In front of public officials, local science fair winners cut the ribbon at the opening ceremony.



Figure 3: Elise Belmont, President of the Whiteville Play Group, at the opening day ceremonies.

"The numbers tell the story, one of strong interest and support of the North Carolina Museum of Natural Sciences at Whiteville. However, the real story could be seen in the faces of the intergenerational, the multi-ethnic and the cross socio-economic visitors to the museum. Parents and children were looking through microscopes together. A foster grandmother was taking pictures of her foster grandchildren interacting in the museum's Discovery Forest. Adult educators, teenagers, and moms and dads with young children were all finding joy in micropipetting 'painting', handling beaver skeletons and bear fur and even observing insect and animal scat. In other words, the opening weekend was a snapshot of the amazing potential the museum has in providing our rural, underserved area with high-quality educational activities ... In fact, supporters of the museum believe the Whiteville facility will be a prototype for the rest of the state and perhaps the nation for bringing science and nature learning directly to the people. The grand opening weekend is only the beginning of the story. Much depth and width of plot is under development. This story can be an epic prototype – one that blesses the community and the state for years to come ... Organizers were overwhelmed by the show of support by the public at Saturday's grand opening of the NC Museum of Natural Sciences at Whiteville. The good news is that the folks in Raleigh know how to run a world-class museum, and now they're bringing their show on the road where people can learn and enjoy close to home."

Then on March 3, The News & Observer in Raleigh ran an editorial titled “A world opens”:

“Columbus County, two hours due south of Raleigh, in a rural underemployed region of North Carolina might seem like an unlikely place for a satellite of the state Museum of Natural Sciences. But that is exactly why it has become home to its own museum branch. The wise strategy of the state museum is to reach out to rural areas and in particular to the children of those regions to give them a taste of science, a chance to share in the wondrous world of the spectacular museum in downtown Raleigh ... The ambition of Emlyn Koster, the museum’s director, is for other communities in the state to find space for their own branches... “That,” he said, “would be the ace in the pack.” Yes, that’s it exactly, as that young child who lives without the experience of having a museum within reach might feel a spark that would lead him or her to the goal of being a scientist or to a grander world of learning. About 75 percent of public schoolchildren in Columbus County are poor enough to receive free or reduced priced school lunches. Underemployment is too high, and the region is isolated. But now it is home to part of the North Carolina’s much-praised Museum of Natural Sciences. That is a victory.”

On February 28 the Whiteville opening became a Google alert of museum field news; within a week it had become an Associated Press story with pick-up across the USA. Since the opening weekend local interest in the Museum has remained high. Satellite staff have established a full menu of engaging science programming, targeting a wide

range of audiences from story times and afterschool programs for preschool and school age audiences, to science cinema programs and nature treks, to evening teen science cafes, and for families and the community in general. Additionally, school groups from across the region—including from neighboring South Carolina—are flocking to the new space, completely filling every available school program.

Looking Ahead

This North Carolina project has positioned itself as a proof of concept that major museums can create microcosms of themselves in communities two or more hours away in driving time and with limited discretionary travel resources. Judged by the resounding success of the opening ceremonies in terms of the content of speeches by influential figures, local fundraising that exceeds the first year \$100,000 goal, local and nationwide news coverage, attendance numbers, and advance reservations, this project is deemed a resounding success to date. It is also one with very strong potential of sustainable success as evaluated over time, for example, by the career ambitions and achievements of local students and the perceptions of local officials, social service agencies and families that the Museum has elevated the quality of life in an enduring way.

Already, the Museum’s new satellite in Whiteville is viewed as a positive contributor to the region’s economy. Gary Lanier, Director of the Columbus County Economic De-



Figure 4 (Left): Opening day visitors in the natural world investigate lab section of the Museum’s new branch.



Figure 5 (Top Right): Opening day visitors in the natural world investigate lab section of the Museum’s new branch.



Figure 6 (Bottom Right): Families in the naturalist center section of the Museum’s new branch.

velopment Council, has described the benefit with this statement:

"Having a branch of the North Carolina Museum of Natural Sciences here in Whiteville provides children throughout southeastern North Carolina with unprecedented learning opportunities. As an economic developer, I am especially excited with the transition taking place here. In today's high tech world, having a workforce that is well-schooled in science, nature, mathematics, ecology, and technology is critical to economic development. We will now be able to provide students living in our region with access to some of the same types of learning experiences that are available to their peers in Raleigh and other metropolitan areas of the State. That can only strengthen the skills and abilities of the children that will be the core of our workforce here in southeastern North Carolina in just a few short years." (<http://naturalsciences.org/about-us/news/north-carolina-museum-natural-sciences-open-whiteville-branch-natural-world-learning>)

There is a broader result which may well be the most powerful one over time. Wilson (1984) introduced the term biophilia to refer to an innate positive bond that humans have with other living systems in nature. On a related note, White (2004) stated:

"Not only does the loss of children's outdoor play and contact with the natural world negatively impact the growth and development of the whole child and their acquisition of knowledge, it also sets the stage for a continuing loss of the natural environment. The alternative to future generations who value nature is the continued exploitation and destruction of nature. Research is clearly substantiating that an affinity to and love of nature, along with a positive environmental ethic, grow out of children's regular contact with and play in the natural world."

Through its provision of indoor and outdoor learning environments about the natural world in Whiteville, the NC Museum of Natural Sciences is spearheading an area of progress in line with the above-referenced philosophy. Mindful of the additional following aspiration, we encourage other institutions to consider similar initiatives in their regions. Gijssen (2010) imagined:

"The museum becomes critical to the long-range health of a place: central to think-tanks, planning initiatives and community transformations ... It is an institution others actively seek for guidance and expertise, harvesting from its knowledge, communication methodologies, community connections, and relationships ... In such an ecosystem, the museum's role does not have to be explained or rationalized: [others] embed it in their governance, research and educational programs."

To a field yearning for greater external relevance (Anderson, 2012), Gijssen provides us with a laudable goal.

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Emlyn Koster is the Director of the North Carolina Museum of Natural Sciences and was previously the President and CEO of Liberty Science Center. He can be reached at emlyn.koster@naturalsciences.org. LuAnne Pendergraft is a Senior Grants Writer at the North Carolina Museum of Natural Sciences. She can be reached at luanne.pendergraft@naturalsciences.org.