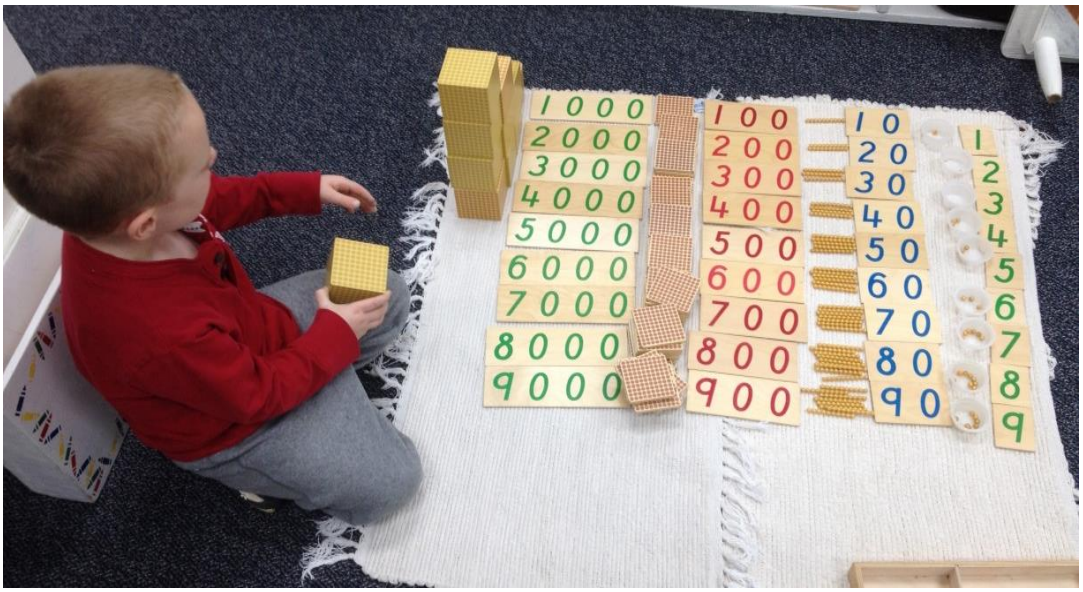

Montessori Messenger

February 23, 2014

Dedicated to the joy in education and the lifelong desire to know.

Alumni Return to Danville Montessori – Memories of a Method

By Pat Critchfield

On November 25, our PTO hosted a panel of Montessori students returning from high school and college, to speak on the subject of their life experience after leaving Danville Montessori School. The returning students, like others in the past, spoke of their experiences in middle, high school and college.

Success built on confidence and competence was a common thread, though the group members expressed it in different ways. They spoke of working to high internal expectations; the ability to collaborate with others; of creativity and independent thinking. One parent asked if the students were a select group of DMS students. The college students replied that they had never thought of themselves as out of the ordinary while in the Montessori classroom and were later, much to their surprise, identified as just that. They identified their inquiring minds and the work habits developed at an early age, as the elements that set them apart. One creative individual spoke of overcoming personal challenge to do well in school and become a song writer and musician at age sixteen.

Favorite Montessori classroom experiences were revealed as the students recalled the grammar symbols, which they still visualize, the puzzle maps, and color coded math materials. One student spoke of leadership skills developed through the rotating responsibility of being “special person” at the elementary level, a position requiring both leadership and responsibility.

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The competent, poised individuals fielding questions at the PTO meeting in November are the result of design. Beginning at age three and continuing until they leave us for middle school, our students are formed by their every experience in a nurturing, family-like community, the Montessori classroom. This environment encourages curiosity and collaborative learning. Spooning rice, counting and exchanging bead with the place value material or spelling out the “secret word” with the moveable alphabet, young minds imbibe independence, competence, responsibility, and a sense of inquiry that they maintain into adulthood.

Observe the upper-elementary classroom on any day. Students responsibly carrying work records pursue choices in science, geography, history, language, geometry and math. Some of the work is skill work done because it is required to be on the work record. Other choices are undertaken with joy and passion. Witness the delight, the sparkle in the eyes of a nine year old student as she reads her paper on the language and religion she has created for the population of her imaginary island; or the pride of the nine year old boy as he enthusiastically shares the results of his research on the history of ancient Mesopotamia.

Montessori students, past and present, demonstrate initiative, confidence, and above all joy. This is Montessori education as it has been and as it is now and in the future.

The Montessori School—still relevant 95 years after its creation…

By Lisa Nesmith

Maria Montessori did not set out to create a philosophy or an educational methodology. It was through her experience as a physician working with children in society who had been labeled "un-teachable" that she began to observe and develop thoughts on human social and cognitive development. From her medical training, she brought to her work the scientific tools of observation, experimentation, and precise measurement. She objectively watched children to first learn their needs and then patiently experimented and constructed what would address those needs. She carefully documented and measured the progress of the children she worked with, first with the mentally "deficient", as they were labeled by their society, and then with the "normal" children in the Casa de Bambini. From her success with these children, she was able to create a precise environment and outline for educating the child that was truly revolutionary for her time and for our present society.

So what is the Montessori philosophy and teaching curriculum? Maria Montessori believed that children are capable of teaching themselves how to learn. She felt a child, if given the right tools, environment, and freedom within limits, will explore and choose the activity that specifically enables him to learn and develop skills to which he is particularly attuned at his specific age. She called these phases of development (cognitive, social, & physical) sensitive periods. In each period, a child is uniquely primed to learn a certain set of skills. In her model, development occurs in 6-year increments ranging from 0 up to 24. Current brain research has now affirmed what she discovered in the early 1900's.

Maria Montessori carefully observed the daily routines, behaviors, and misbehaviors of the children in her care and tailored the materials present to the specific needs and interests she observed. According to Montessori's experience in her time, a child left to learn in a traditional classroom would often demonstrate what had been labeled "deviant behaviors," such as the inability to focus and concentrate for more than a few moments, useless physical movement, poor sense of order, and seeming inability to independently care for him or herself. (These are the same behaviors that children and teachers struggle with today). The goal of the prepared environment and the teacher was to help the child "normalize his/her behaviors through the purposeful work and learning in the classroom.

Montessori observed that given a familiar task, shown in an ordered process and completed using child-sized implements, the child would choose to pour, count, sort, categorize, wash, etc., and would repeat the activity until his need for the skill was quenched. Even when given a choice between toys or imaginary play objects and the routine, recognizable objects of home, the child would choose to "work" on practicing self-dressing, washing hands, arranging flowers, tracing sandpaper letters, counting beads, etc. And once satisfied with these tasks, the child was able to move into the more complex academic work laid out in the classroom, thereby flowering into the exceptional readers, excellent mathematicians, exquisite observers of the natural world, creative authors, etc., we often see in Montessori students.

The entirety of the curriculum she constructed after observation and experimentation is based on the notion that the child's intellect lies in his/her senses. Children have an innate desire to manipulate, to move, and to explore through their senses. These senses form a direct pathway to the brain and provide multiple levels of memory that are integral to the cognitive development that occurs. Each Montessori material is designed to excite a child's senses, to invite exploration and to attract them at the specific moment their body and mind are telling them to acquire this skill.

Even though Montessori developed these concepts and materials, and created her methodology in the early half of the 20th century, her teachings and conclusions remain relevant and successful today. Children still develop along the planes she outlined in her writings. They still learn through sensorial engagement with their environment and learn best through movement. They still display an innate curiosity about their world and a desire to imitate the actions they have observed from birth, to become an independent being. They also continue to demonstrate similar behavior challenges to the ones Montessori observed in her time. Children struggle to develop and maintain focus and concentration. They struggle to follow directions in the face of many distractions and this becomes a deterrent to their learning. Children often have difficulty controlling their impulses and unnecessary physical movement, which disrupts the classroom and other children's work. And finally, children struggle to find a way to function as a thoughtful member of a peer community. How is a Montessori classroom suited to address all of the above?

Learning Through Movement: Montessori materials are designed to be picked up, held, and manipulated. One example is the pink tower. The graduated set of blocks attracts the child with its color and smooth wooden shape. It keeps the child's interest because he chose the work freely and because of the open-ended building design potential. Children must move when using the work because blocks are carried one at a time and there are 10 total. Through this work, children learn what a 3 dimensional cube is. At a very basic level, the groundwork for place value is established because this is a set of 10. The child sees and feels the difference in size as the blocks are graded largest to smallest. And the brain organizes and catalogs all of the knowledge gathered by the senses just as the child organizes the item on the shelf, cleaning up his work upon completion.

Freedom within Limits: The Montessori teacher fills the environment with work she wants a child to "choose" from. The child is "free" to choose and work within the limits of what is positive for the classroom, the child, and the community of students. The limits are carefully constructed and maintained as a part of the structure that nurtures the child's own self-learning. The freedom is further extended to allow a child to repeat his work with any material in the environment as long as he is working with the material as it is intended and not interrupting the work of the other students. Once a child has settled and focused upon his work, this focus and concentration are respected and not interrupted, even by the teacher. This freedom within limits respects a child's intellect and the work he does to build it. It also teaches a child to respect his peers and their learning and creates an awareness of how individual actions can affect the whole.

Full Sensory Exploration: Each Montessori classroom is to be beautifully organized and filled with attractive, colorful materials all in good repair and aesthetically pleasing. Children engage with each material in the classroom with at least two senses. An example of this multi-sensory exploration is how children learn using the sandpaper letters. The sandpaper letters teach letter recognition and they instruct in symbol to sound correlation. A child uses his index and middle finger to trace the letter that is drawn in a raised sand print on a wooden board. The wooden board is beautifully crafted and the feel of the raised sand is quite satisfying to trace. As the child traces the letter, he is given the letter sound, first by the teacher and then repeating it independently. He has had an auditory, visual, and tactile experience of what the letter is. He has a visual picture, a tactile memory of tracing the letter, and an auditory memory of the sound. In addition, he has mimicked the sound with his own mouth.

Child-Led, Child-Centered Learning: Lastly, consider the way in which a Montessori teacher determines what to present to the child and when. The teacher is considered a guide in the learning and not the sole instructor. Through careful, daily observation, the teacher discerns what skills the child is perched to acquire and presents materials designed to help a child learn by doing. Once a child has demonstrated mastery of one material and the associated skill, the teacher then presents a next material and continues the process, moving the child through an established progression of materials in increasing complexity. The focus of learning is guided by the child's readiness and interest. The pace of learning is set in the same way. The process ensures respect for the child's ability to teach himself.

Montessori education meets a child, any child, where he is, and encourages him to flourish and reach his full potential. You can observe the above principles in action at all Montessori age levels: 18-24 month toddler programs, 3-6 pre-primary classrooms, elementary classrooms, and on up. Danville Montessori fully strives to provide your child--preschooler, kindergartner or elementary student--with this very learning environment. We invite you to partner with us in the process.

Interview: David Stroup

By Stuart Critchfield

David please tell us a little bit about yourself.

I'm currently in my third year in the Doctoral program in Political Science at the University of Oklahoma. I'm studying Comparative Politics and International Relations, specifically issues of nationalism and ethnic politics in China.

How did you become interested in Chinese politics?

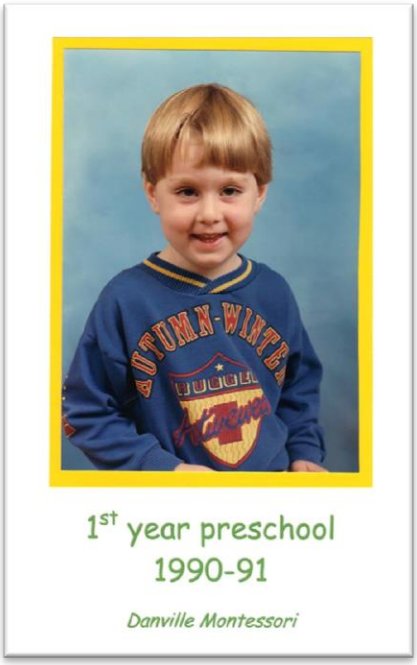
I've always been very interested in culture and geography. In fact, even at Montessori, I was obsessed with flags and maps. I think my interest in Chinese politics is an outgrowth of that interest. The interest in China specifically comes from a couple of places. First, when I was 16, I took a trip to Asia with my dad, and was really taken with Asian culture, history, etc. I really wanted to learn more, and China was a natural choice as the core culture that influenced so much of East Asia. Then, during my sophomore year in college, I took a course in Chinese Politics from a professor who would later become my major advisor. Her passion for the subject really convinced me that this was what I wanted to study. It was one of the best classes I took in college, hands down. That really got me into the subject.

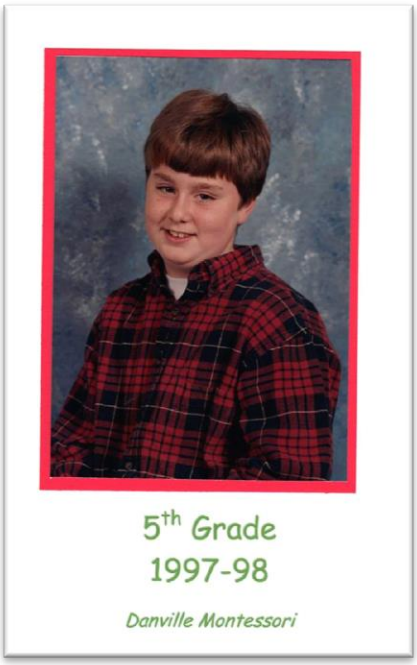
You earned your undergraduate degree from Davidson College in Davidson, North Carolina. Please tell us a little about Davidson, why you chose it, what you studied, etc.

Davidson was a great fit for me. I grew up around liberal arts colleges (my Dad teaches at Centre and my Mom is an alumnus), so I really appreciated Davidson's commitment to the philosophy of the liberal arts: interdisciplinary learning, exploring how different aspects of knowledge relate to one another, becoming academically well rounded, etc. I also admired Davidson's commitment to community and teaching. It's a small school (less than 2,000) and teachers know their students and are invested in them. That mattered to me. I feel like my experience reflected that. I had a great relationship with my advisor (who I am still in touch with today as I pursue my Ph.D.) and I made lifelong friends from all over the country, and in all academic backgrounds. I got to study abroad in China, write a senior thesis, take classes in the humanities (wherein I read—among others— Homer, Plato, Aristotle, Augustine, Dante, Luther, Thomas More, Descartes, Nietzsche and Yeats), the history of jazz, and astronomy, AND I got to be the Station Manager of an AM College radio Station. Plus, I got to watch (now) Golden State Warriors star point guard Stephen Curry (Davidson class of '10) play in person for 3 years! It was a great place to be a student.

Prior to that you attended Danville High School?

Like a lot of high school students, I was really involved in a lot of extracurricular activities. In the fall I played soccer. During the winter I did speech/debate/forensics. Spring was the time when I'd act in the school play. In this sense, DHS was really important in teaching me to manage my time in and out of the classroom. I also was truly lucky to have great mentors in all of these exercises. Gary Reynolds taught me a lot about hard work and teamwork as the head coach of DHS Soccer. Margo Goodwin encouraged me to explore culture and language and the larger world as my French teacher and taught me the importance of charity and service as my





National Honors Society Sponsor. Jan Scott taught me valuable lessons about writing as my journalism teacher, and Steve Meadows was a truly important mentor who taught me important lessons about critical and analytical thinking, writing, speaking and argument as my Forensics coach and my English teacher. I have always been fortunate to have had amazing teachers, and DHS was no exception. All of these people were truly important in my education, but also in shaping the way I viewed the world, and how I pursued knowledge. For that, I am very grateful.

And of course you were a Danville Montessori student. What are your earliest memories of DMS?

I remember from a very early age learning the shapes of countries by using the wooden maps in the kindergarten classroom. Also, I really remember all of the miniature flags of the world we had on stands in the classroom. When the USSR fell, I remember being really excited because it meant that there would be more countries on the map, and more flags to memorize! Early on, I also remember learning lots about dinosaurs, and the diversity of animal life—truly something amazing for a kid who thought that enormous lizards were amazing. Likewise I remember learning grammar by using those shapes to diagram parts of speech in sentences (to this day, verbs are bouncing red balls in my imagination!). I think that Montessori gave me a really great and unique introduction to all kinds of subject matter in math, science, grammar, and social science that I am still exploring today. To think, the roots of my current research in grad school lie in my earliest days in school at Montessori!

What do you think the strengths of your Montessori education were?

I very much remember being entranced with Montessori's materials. I have been told by numerous aptitude tests that I am a kinetic learner who learns best by doing. Montessori's hands-on approach was perfect for me, even if I didn't know it at the time. Mostly, I think I owe my current time-management skills to Montessori's commitment to individual pacing and work schedule. I think because I went to a school that emphasized tailoring learning towards my own pace and my own strengths, I learned a lot about critical thinking, and how to do things on my own. I learned a lot about taking initiative in asking questions, being curious and willing to explore. After Montessori, I understood that learning was not just about receiving information that was given to you, but also about actively looking for answers and solutions, about asking why and how, and looking for the aspects of math, science, language, etc. that were interesting and immersing myself in them. I loved Montessori because as it turned out I loved to learn, something that remains true to this very day.

When you reflect back on your educational journey, how does Danville Montessori fit in?

Montessori definitely convinced me that learning was fun, and was a journey. In many ways, I think my commitment to liberal arts and finding the connections between different facets of knowledge has its roots in Montessori. And certainly Montessori encouraged me to think deeply and creatively about questions. While I think many schools encourage memorization and learning to fulfill objectives, Montessori encouraged me to view learning as exploration. It encouraged me to embrace thinking critically and in-depth. That's something I can't thank my teachers enough for.

Davidson College

2014 U.S. News & World Report #9 National Liberal Arts College

Oklahoma University

David is currently in the Doctoral program in Political Science studying Comparative Politics and International Relations.

Did being a Montessori student influence the student you are today? What do you think you took away from DMS?

I certainly owe my love of culture and history to the very sophisticated and enriching studies of Ancient Egypt, Greece, Rome, Britain, and Pre-Columbian America that I did with both Pat C. and Jackie. To think, we were learning anthropology even in the first grade! Also, I owe Montessori a debt of gratitude for introducing me to classic literature through reading Great Books, Greek and Norse Mythology, and allowing me to read books like *The Chronicles of Narnia* series, Brian Jacques' *Redwall* books, and countless others.

Do you have any favorite memories or lasting impressions of DMS that you would like to share?

Looking back, I'm impressed that even during our recreational time, we were doing educationally stimulating work. For instance, I remember playing Sim City 2000 on the computer in the upstairs classroom when I had finished my weekly work schedule. As someone who is now studying the politics of urban development in China, I find this foreshadowing to be pretty amazing! Also, I remember Montessori being really important in solidifying my love of sports (oddly enough). The Montessori basketball teams of the mid 1990s (coached by Stuart, my dad and Clarence Wyatt among others) may have a smaller bench (and more female players!) than the competition from the public schools, but we were fearsome on the court! I believe we were undefeated until the league championship game during my 3rd grade year.

Any advice for our current elementary students? Many would be inspired by you!

I would encourage them to embrace the opportunity to delve deeply into questions. Don't think of school as something that you HAVE to do. Think of it something exciting that you GET to do. Find something that you're really interested in—whether that's math, science, reading, geography, history, writing or art—and explore as much of it as you can. Take every opportunity that you can to explore something new. Look for ways that different kinds of subjects fit together (for example, find the science of art, or the art of science). Most importantly, don't look at school like it's a chore. Instead, think of it as being the greatest adventure you can go on. I didn't realize it, but the work I was doing at 5 years old in kindergarten would really be important when I got to college. Finding that one thing you love to do begins in the classroom, even if you don't know it at the time!

What are your plans for the future?

I'm hoping to start working on my dissertation next fall, returning to China to do fieldwork and interviews. After that, when my writing is done, I hope to get my Ph. D. from OU, and find a job teaching political science to college students. I'd love to find a job at school like my alma mater, Davidson, or Centre, the school I grew up around: a small liberal arts school with a commitment to teaching, and to its undergraduate students. I also hope to continue to do research, and involved in the development of new knowledge about politics, culture and society at large.

Is there anything else you would like to say?

I think I've said all I have to say, but I should mention that Montessori has been truly important to me over the years, and I'm truly glad to have had all the advantages Montessori had to offer me. I wish all of the teachers, parents, and (most importantly) the students of DMS the best for the future!

The Montessori Upper-Elementary Mathematician

By Pat Critchfield

The upper-elementary math student comes into the 9-12 years well grounded in the concepts necessary for abstraction. Concrete preparation at the 3-6 year old and 6-9 year old level focused on the development of an understanding of one-to-one correspondence; quantity and number; and the four operations of mathematics: addition, subtraction, multiplication, and division. This focus continues at the upper elementary level with the movement toward further abstraction based, as always, in the concrete expression of math concepts.

The 9-12 year old child is a conscious learner, as was true of the preceding level. Like the former developmental period, the child continues to cultivate imagination based on an understanding of reality. The ability to imagine is integral to understanding.

The Montessori math materials are designed to develop understanding and are the embodiment of the concept to be taught. They permit the child to explore the physical reality of a concept and to internalize it through hands-on practice. Multiple repetitions by the child are required in order for comprehension to occur.

Capable of extended periods of focus and able to work hard, the child can imagine, for example, the abstract notion of fractional parts based on work done previously with in the concrete. The child has developed competency in addition, subtraction, multiplication, and division of fractions by this time. Having built equivalent fractions concretely, he moves on to the abstract understanding of equivalency and its uses in the conversion of fractions and mixed numbers.

Math concept work through fourth year elementary includes extensive work with division and decimal materials that illustrate the algorithms to be internalized by the individual child. As always, the child's hand and mind must be repeatedly on the materials before he is ready for abstract work independent of the material.

Third and fourth year students learn long division using a series of bead filled test tubes color coded to the decimal system. Long division is discovered to be a series of divisions that results in one individual share. The child checks his results using inverse operations, in this case long multiplication, and reads his results to a teacher. He will hear repeatedly from the teacher, "The answer in division is what one unite receives." Likewise, decimals are taught with specially designed materials which emphasize the differences between whole numbers and decimal fractions. A series of color coded boards are used to add, subtract, multiply and divide decimals.

A "math facts curriculum"' precedes concept work. Ratio, proportion, percents, decimals are pursued. Math facts are honed daily by self-administered "timed facts test" covering the four basic operations, plus fraction equivalencies, mixed numbers, percent, decimals, integers, and measurement.

Additional strands of the upper-elementary math curriculum include geometry, squaring binomials and trinomials, square root, cube root, problem solving and pre-algebra.

Our elementary students transition into traditional schools after their Montessori years. With this transition in mind, formal Saxon Math lessons, and the corresponding homework, are given daily at the upper elementary level.

Montessori classrooms provide environments strong in the components which lead to the development of understanding and resulting math literacy.

The genius of the Montessori math materials and the work ethic supported by the method are responsible for the success and confidence of our students in later years and explains their outstanding performance on standardized tests.

BOOK FAIR!!! BOOK FAIR!!!

SUNDAY, FEB. 23 – THURSDAY, FEB. 27