

The Renaissance Man and the Blue-Colored Bird

by Jeffrey Johnston, Bradford Academy

John James Audubon observed and made beautiful paintings of the birds he saw. Henry Vandyke Carter illustrated the influential medical text, *Anatomy: Descriptive and Surgical*, popularly known as *Gray's Anatomy*. Both of these men made significant and lasting contributions to their respective fields of science. Both of these men expressed their scientific observations in beautiful, detailed, and accurate sketches, illustrations and paintings. Their work has been a blessing to those that came after them because they looked or observed carefully and could draw accurately the things they saw. The question some may ask is: are they are scientists or artists?

During a science excursion a student approached me. "What do you think it is?" he asked. I was looking at a sketch of a bird in the student's field notebook. The sketch was adequate but lacking in detail.

"Are the colors accurate?" I replied.

"I think so," he said without conviction. The young scientist had drawn his sighting in the shape of a common song bird, with a round head and colored it entirely blue. The only bird in my experience that had that much blue coloring was a jay.

"Did the bird have any black or white marking?" The student wasn't sure. "Was the head round on top or crested?" Again, the student wasn't sure. I suspected that the bird he had seen was a blue jay but that he probably hadn't noted the details. I told him to keep a good lookout for that same bird and try to observe some more of the details.

As he walked away he turned and said, "Mr. Johnston, I think it might have had orange on it." Although I am not an avid bird-watcher, I was sure I had never seen a blue and orange bird here in this small town in central North Carolina. I am embarrassed to admit that if it had been another student, I may have been more interested. I dismissed the comment because I was certain the student was mistaken. Unfortunately, this particular young fellow had struggled with accuracy in some of his other classes. I repeated the mantra of the last few weeks, "Look carefully. Only draw what you see."

We had been bird-watching as part of our second grade science class in the lovely wooded property behind our school. So far, we had seen a falcon, a cardinal, a robin, a Canada goose, an American crow, a tufted titmouse, a chickadee, a sparrow of some sort, and a few other birds still to be identified. The students had been doing a wonderful job watching for birds and then sketching and coloring their observations. We had been studying the *Logos School Guide to North American Birds* to memorize and sound-off bird facts. We had also listened to some of the common bird songs we would expect to hear in our area. Now we were testing our knowledge in the woods. We had also been using *Drawing with Children* during art class to learn how to draw. I thought that keeping a field notebook would be an excellent point of integration for art and science.

Previously we had observed

various leaves and had to make observations on the shape of the leaf (rounded or sharp angles), its vein pattern (parallel or netted), and how it grew from the stalk or branch. By requiring the students to answer a few simple questions about the leaves, we were training them to look at them carefully. We were essentially training the eye to observe, to see what was really there in front of them. We had then compared our observations and drawings to various field guides. If we were uncertain, we would go back to the leaf and look for other clues to help us identify the plant or tree. Sometimes this involved correcting our drawings. We had then moved on to birds. All of these lovely drawings filled a notebook to be graded for science class. I wrestled with the question, "Should I also add the drawings to their art portfolios?"

In our highly specialized world of academic pursuits, we have fallen into the trap of excessive categorical isolation. That is, we make a category to better help us understand something and then never adjust our category or admit any connections to other categories. Perhaps too often we ask, "Is it art or is it science?" For whatever reason, our academic fathers have trained us to think in rational pigeon holes, avoiding the forest in order to study the tree. However, in the examples illustrated, I have already hinted at the reality that sometimes art and science are not entirely separated.

Essentially the scientist and the artist do the same thing: they observe. It is certain that both do more than just observe; however, if they lack this common skill, they will be crippled in both scientific and artistic advancement.

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The Renaissance Man . . .

Sadly, the tendency to isolate science from art has also led to the categorization of humans into inescapable stereotypes. Teachers

should no longer serve as examples to emulate. Perhaps Leonardo Di Vinci, Ben Franklin, and Blaise Pascal are examples of mere

see what really is before them. The self-proclaimed math student may say he's not good at art until he learns that a little shading in the right place can make a circle look like a sphere. He can add a couple curved lines and some shadows and a rectangle becomes a column.

The wise teacher will also underscore the integrated virtue. Accurate and detailed observation is a form of truth telling. While making measurements the students must learn how to look carefully and report what really is. We don't fudge our measurements to get the results we expect. A scientist reports what is true. When the young artist draws a face he needs to learn the correct proportions—that the eyes are really half way between the top of the head and the chin. We don't draw them in the place we might expect; we draw them where they are in reality. An artist draws truthfully.

On our next field study opportunity, the student returned to me with a corrected drawing. Sure enough, he had spotted the eastern bluebird, whose population has been greatly diminished in our area. I had never seen one before. The orange-breasted songbird with the brilliant blue head, tail, and wings became the highlight of our bird-watching. Each sighting from then on was met with squeals of excitement. My young scholars were becoming artistic scientists or perhaps scientific artists. Either way, they were learning to observe more carefully and report truthfully what they saw.

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and parents will announce to anyone who will listen that a student is more of a math type, or an artist type, or an athletic type. Students can latch on to those types in a kind of self-fulfilling prophecy. We allow students to foster an interest in an area that comes easily to them while allowing them to neglect another because that is work. While students may have natural strengths in an area, we should not let them disregard those studies and skills that challenge and stretch them. We have created in our minds a category, then placed the student in it and never dare them to move beyond that category.

Sadly, we have forgotten the idea of the Renaissance Man. Perhaps the manufacturers of modern educational theory feel it is too hard to teach science guys to draw or art guys to do science? Maybe we believe that they are too different. We have convinced ourselves that the only common trait among our imaginary caricatures of the art types and the science types is the pale skin. Maybe we have convinced ourselves that the multi-talented men of the past

oddity, like a sideshow freak.

We can imagine the scene: "Look ladies and gentlemen, the amazing and slightly grotesque RENAISSANCE MAN! He can paint and do physics!" The crowd lets out a collective "OOOOh!" The carny continues, "But wait, watch him excelling in botany and philosophy!" The crowd gasps. One elementary teacher whispers to another, "I'm glad he wasn't in my class, I'd never figure out his learning style." An education professor shudders, "It's like he's not left brained OR right brained. He's like a two-headed monster."

The goal for our students should be to allow and encourage those areas of natural integration. The art teacher and the science teacher should work together to develop the skills of accurate and detailed observation. The art teacher should say often, "Draw what you see." She should challenge a child's drawing. "Does that line really meet that line in that spot?" "Can you see that part of the curve or is it hidden behind that object?" "Isn't that color lighter on this side of the object?" These kinds of challenges and questions should be made to all students so that they all learn to