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Artist Development

How can one change the world if one identifies oneself with everybody? How else can one change it? He who understands and forgives—where would he find a motive to act? Where would he not?

The protagonist Rubashov in *Darkness at Noon* by Arthur Koestler

Stage Development

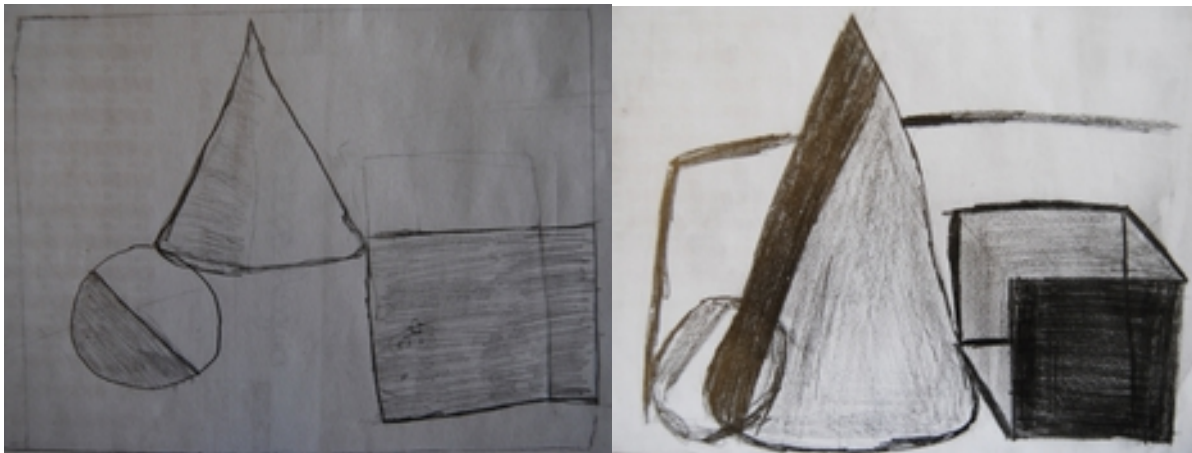
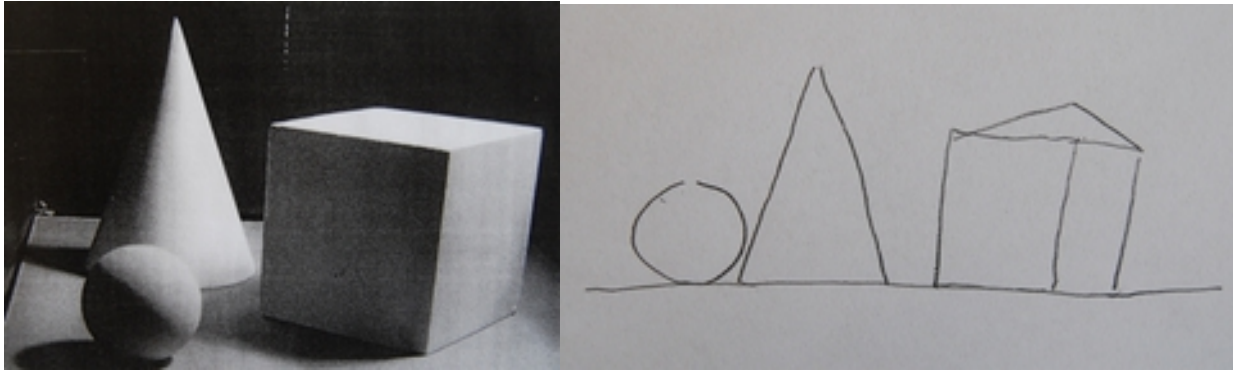
Symbolic, Notational System, Formal Disciplinary Knowledge, Skilled knowledge

Howard Gardner in his essay *Art Education and Human Development* states the basic tenet of learning: “Individuals do not develop merely by existing, or growing older, or becoming larger; they must undergo certain pivotal experiences that result in periodic reorganizations of their knowledge and their understanding. The experiences of developmental growth are dependent upon an individual’s genetic predisposition coupled with environmental opportunities.” Gardner’s statement is aligned to his theory of multiple intelligences, and spatial intelligence is a requirement for the visual artist. Additionally, visual learners must have learning opportunities with substantial practice time to develop their productions skills. Neither visual intelligence nor productive practice alone can produce the skills and the knowledge essential to becoming a visual artist.

Prior to entering school, virtually all children will enthusiastically draw or paint at every opportunity. Victor Lowenfeld, in *Creative and Mental Growth*, provides the term *pre-schematic* for “unorganized” scribbles - the first developmental step that is universal among all children, regardless of their genetic predisposition to visual learning. Lowenfeld also points out that the appearance of randomness in pre-schematic drawings may often be deceptive to the adult viewer. In interviews with children who had made drawings, many could ascribe a narrative meaning and purpose to the marks they applied to paper. The earliest marks of the child can be said to represent ideas, actions and objects that are projections from the child’s imagination, unrepressed and not yet hindered by reflective and critical thinking skills.

Lowenfeld continues his developmental progression using visual examples of children’s art work from the symbolic representations of the schematic stage through the successive stages of children’s productive work in relation to their growing reflective and critical thinking skills. The resulting implication is that cognitive abilities and visual production mirror each other, reflecting unified mental development stages in children.

Early in my teaching career I enthusiastically embraced Lowenfeld’s developmental growth theories, but with experience I have become more cautious in applying them as diagnostic and interpretative tools. My concerns were that I would allow preconceptions from learned knowledge to replace looking, understanding, and reacting to individual learning situations. Still, Lowenfeld’s idea of connecting visual and critical thinking to a developmental unity has merit. For example, when I find a high school freshman drawing at Lowenfeld’s lower elementary baseline development level, the student always lacks the critical thinking skills necessary to meet academic requirements.



Pictured above is an assessment exercise I request all Basic Art students perform on the first drawing day of classes. The students are asked to draw the still life on the top left. They are asked to note and record the size relationships, placements, shadings, and cast shadows of the objects in their drawing.

On the top right I created a drawing to illustrate exactly what a baseline drawing looks like. The baseline drawing is the third stage in Lowenfeld's development system. It is a child's first attempt to organize space, where previously in the schematic stage objects typically floated in space. The horizontal line at the bottom represents a ground or surface on which objects sit or stand, and all objects drawn are firmly attached to this baseline. In the picture on the bottom right, all of the objects are noticeably aligned at the bottom of the page, very similar to the baseline illustration above it.

In the drawing on the bottom left, the two sides of the cube are drawn almost as a straight line at the cube's base. This is the baseline principle applied to a single object. The object is sitting on a flat surface. With a limited understanding of pictorial space, the only way the student can think of showing an object with a flat base sitting on a flat surface is with a straight horizontal line. To the student, the flat line indicates that all sides of the object are sitting on a unified flat surface. The horizontal line at the base of the cube is actually the line representing the table. This baseline solution has left the student without any understanding of how to draw the top plane of the cube. The table top is turned ninety degrees and drawn as a flat rectangle, turning the remainder of the picture into a schematic drawing of floating objects, without recognition of scale or size relationships. In past years I have seen a few baseline drawings like the fabricated drawing on the top right, and those students always performed

very poorly in their academic courses. What the base line drawing indicates is that the student is performing at a lower developmental level not just in art but in all cognitive functions.

The geometric still life is just one of three assessment tools I use at the beginning of the school year to get a better idea of who I will be teaching, how much assistance they will need, and whether the academic administrator needs to be alerted to watch a particular student's academic performance.

I have also witnessed a connection between visual thinking and production skills and academic achievement. In an untrained mandatory Basic Art course, students' level of success and achievement mirrors that of their academic classes. Students who demonstrate a high academic performance level are best able to understand and implement the concepts being taught in the Basic Art course. Students who fail or perform poorly in Basic Art generally perform poorly in academic classes and often are failing multiple subjects. However, my observations have led me to believe that the discrepancy is not always the result of the higher achieving academic student being more intelligent or even more visually intelligent than the underachieving student. The difference often lies in the degree of self-discipline a student possesses. Those students wishing to be successful beyond high school recognize that it is in their best interest to be successful in school and are active, focused, and disciplined learners, regardless of the subject or content being taught. Students failing to make the connection between the relevance of academic success and life choices are less focused and disciplined and function poorly in areas that are of little interest to them. All students act according to their perceived self-interests.

Another subtle observation is that those students who achieve highest in math and science perform slightly higher in visual art than those students who achieve highest in the language arts. Intuitively, I suspect the language arts to be a polar opposite to the visual arts. Language is essential to communication within all disciplines; however, mathematics, science, music, and visual art each have a separate symbol system, and in order for productive thinking to take place within these symbol systems, language must be suppressed during the production process. It is probably the learned ability of math, science, and music students to suppress language during production processes that allow them to perform better than language arts students in visual art.

In the advanced academic art training classes my findings have been very similar. Those students who perform at a high academic level have been better able to understand and implement the visual and production concepts being taught, regardless of whether or not they possess the visual intelligence necessary to become an artist. The students who struggle academically have greater difficulty understanding and implementing standard academic art production practices and techniques into their work. While underperforming students did have a high interest in visual art, their failure was compounded by a lack of ability to understand concepts and the lack of visual intelligence to apply them. Their skill was usually limited to the reproduction of simple animation line drawings, which requires a completely different skill from the technical requirements of an academic art course. In the event a student is removed from the academic art course, she is reassigned to a project-oriented studio class where objectives are flexible and loosely defined by assigned projects. Most all students interested in art perform very well in this program, except for the very low academically performing student, who likewise performs poorly in the project-based visual art class, creating a mirror reflection of academic and visual thinking skills.

These observations are not to be confused with the idea of the genetic predisposition necessary for visual artists. The highly achieving academic student in the mandatory Basic Art program may learn and

apply the instructional content within the narrow confines of the lesson, but lack the ability to visually think and create using the learned visual notational system. All they have learned is the simple visual alphabet that has been used to construct a few symbolic notations where a construction pattern was provided for them. Critical visual production thinking and visual problem solving could not be expected from individuals who lack the practical experience and genetic predisposition of the visual learner.

It is my position, which I can demonstrate to anyone in a forty-minute drawing lesson, that everyone can learn to draw to the same degree that everyone can learn the alphabet, words, music notations, and sound production. However, to be able to use these symbol systems creatively as part of a thought process requires a specific intelligence on the part of the individual, and clearly Gardner's term "genetic predisposition" refers to his theory of multiple intelligences.

Howard Gardner inserts visual art development into a broad scholastic human developmental structure in his essay *Art Education and Human Development*. His essay sets up a logical defense perimeter around art education in protection against those who feel art is a marginal pursuit that doesn't merit the allocation of time in a scholastic institution.

Gardner's developmental framework begins with **intuitive knowledge**, which starts at birth, when all knowledge is acquired through sensory perceptions and motor interactions. This includes shape and object recognition, predictable behavior of objects, and interactions with others. The developmental period of the **symbolic system** begins at around two years of age and extends to when the child enters into the formal education system. At this stage, children start to assimilate the symbol systems of their culture, such as words, pictures and musical patterns. In the formal scholastic setting, symbolic systems are translated into **notational systems**, such as written and oral language, written musical notational systems, and representational imagery. At this developmental stage, students are actively engaged in formal instruction in all academic subjects and music, while the visual arts remain unstructured, intuitive, and guided by the self-interest of the learning student. All that is essential at this stage of development is simply to provide time, place, material and encouragement to allow the student's development to take its course.

Gardner notes that, shortly after entering school, art production for the majority of children begins to drop off dramatically. The cause may be attributed to increased exposure to pictorial and stereotyped imagery that is often reinforced by scholastic learning. The pictorial imagery that has been presented as a valued symbol system sets the visual standard children feel they must achieve. Children's visual perception is very sophisticated at an early age and, with developing reflective and critical thinking skills, they realize that their goal of photographic reproduction is unattainable and consequently repress their own creative visual expressions.

Another possibility is that academic subjects and visual art are symbol systems that are dramatically different from each other. Since visual art skills are not valued in our educational system, very little time is given to their development. Children must now conform to the insistent and increasing demands of other symbol systems that comprise the valued academic curriculum.

Those students remaining active in art production have achieved a level of technical competency based on their ability to process visual information. By the time these students reach adolescence they begin to identify themselves as artists and art production begins to become a major avenue for personal expression. Those children that discontinue art production completely in the elementary grades make a

conscious decision as a result of their lack of visual processing skills necessary to draw and express themselves in a visual format.

An individual's drawing skill always regresses from the development level at which their art production was consciously repressed. When these individuals are asked or required to begin drawing again, their drawings more often than not reflect the skills of a lower or upper elementary student. Below are examples of 9th grade Basic Art students who had not drawn since elementary school. The assignment was to draw a simple three-tree landscape as a means to create the illusion of a three dimensional space on a two dimensional picture plane. The small trees in the top right-hand corner of both drawings are a printed example of the desired outcome.



Without knowing the origins of these drawings, one would assume that they were drawn by lower elementary school students. Another example I encountered was from a well-educated lecturer from a local university making a professional presentation to a group of educational professionals. The presenter, an individual with advanced degrees from certified scholastic institutions, had produced stereotypical stick figures as part of her presentation. The stick figure drawings in the professional presentation were equal to the developmental level of the ninth grade drawings pictured above.

One cannot dismiss the drawings by the ninth graders as being products of apathetic, disinterested, and undisciplined students when a professional educator of higher educational training and academic successes produces work of equal quality. What links the drawings of the professional educator and 9th graders together is they both have the same sophisticated visual perception but both equally lack the learned and developed visual art notational system to project what they see and wish to express in a visual format.

For example, language is a symbol system that can be learned simply by interacting with others in a culture. Without formal training, a person doesn't learn the notation system of language and is considered illiterate. The illiterate can neither read nor make the marks on paper that represent the words and ideas they think and speak. The same is true in visual art. Unless individuals learn and practice a visual notation system, they will be visually illiterate and incapable of making the marks necessary to express what they see and think in a visual format.

The major difference between the two scenarios described above is that the language arts are highly valued in the scholastic institution and in American culture, while the visual arts are not. Howard Gardner addresses this schism by stating: "More than any other country arts education in the United States has been considered an unimportant part of a child's scholastic portfolio. Americans have always been ambivalent about the merits of the fine arts and especially so when it comes to allocating precious school minutes to a seemingly impractical or marginal pursuit." It is this cultural bias toward fine arts education that allows both the educated professional and ninth grade Basic Art students to dismiss their visual illiteracy by merely stating they can't draw, while the illiterate, or one who struggles with the language notational systems in Western culture, is not allowed a similar dismissive excuse.

Regardless of how one understands and manipulates learned symbol and notational systems, without the necessary genetic predisposition, the uses of these learned systems will have limitations. This includes our state-sponsored educational system's blinkered quest for the coveted mathematics and science students. No matter how many courses a student is required to take, no amount of formal knowledge or content exposure will create the highly prized mathematician or scientist.

Mathematicians, scientists and artists are born and the solution is to identify individuals by disciplinary aptitude and educate them in specialized schools where they can focus on what they were born to do. The perfect example is Fredric Nietzsche, who failed his math classes. He could not be expelled because he was the school's brightest and most promising student in the language arts. Words were the expression of Nietzsche's intellect, and he became a professor of philology and a noted philosopher. His lack of mathematical knowledge had no effect on his professional life, and the time spent in math classes, I'm sure he would agree, could have been better utilized and directed to meet the needs of his individual goals.

In Gardner's next developmental step, symbol systems are used to construct **formal disciplinary knowledge**. Through formal instruction, symbolic systems are used to construct the frameworks for thinking productively and attaining a deeper understanding of formal bodies of knowledge, such as science, history, literary texts, etc. Although Gardner is referring to academic disciplines, this is also the stage of development when formal art instruction begins. Until this stage, art students primarily learn from interactions with cultural institutions, publications, peers, and their own visual intelligence. Formal discipline knowledge begins at the junior high level, for those students fortunate enough to have a visual art program with quality instruction in their school.

In the elementary grades when art was taught, or when students participated in artistic activities, students participated by class, not as interested individuals. Since visual art is a special interest subject, mainly for those possessing visual and spatial intelligence, it should always remain an elective course. Art was first introduced into the educational system due to the practical need to develop skilled draftsmen for the nation's competitive commercial production interests. Today in New York State, art is allotted a small percentage of instructional time in elementary grades, and one unit of credit in art

instruction is required in high school. The espoused reasoning for mandating art at the secondary level is to have students experience instruction in concepts and processes intrinsic to the visual arts and includes participation in the aesthetic, critical, historical, and productive activities essential to appreciating cultural values. Art is deemed to be good for everyone, regardless of individual interests and learning needs.

Those students who have made a conscious decision to stop drawing completely in the elementary grades did so knowing they lacked the ability (visual intelligence) and the interest to produce art, becoming disinterested in personal art production altogether. These students, when placed in the classroom with interested visual learners, limit the materials and media used, techniques taught, and dramatically slow production time, translating to less learning in the course. As in any mandatory class, disinterested students who feel they are being held hostage can become disruptive distractions.

In a couple of schools where I taught, the administrators considered the art program to be a recreational, “fun” class and used it to house the school’s poorly disciplined problem-students who had no interest or ability in visual art. I presume this thought process was based on the misconception that art courses require less disciplined learning than academic courses. The errant perception seems to be that undisciplined students are more manageable in such an environment. In this type of forced learning environment, destruction of materials and distractions are increased causing interested students to learn less. The reason these types of mandated classes exist is due to administrators who are administering what they do not fully understand. Individuals do not suddenly rediscover their artistic abilities by taking an art course, especially when their drawing abilities remain at the elementary level of development. Visual art is not a fun, recreational activity. When it is treated as such, the interested visual learner is denied the learning environment necessary to assimilate the complex visual notation system necessary for synthesis into formal disciplinary knowledge that is the platform for productive visual thinking within the discipline domain of visual art. What is thought to be an inclusive and experiential learning activity becomes a limited learning environment for those who are most interested and best able to succeed in the visual arts.

Formalized Training

The challenge for the junior and senior high school visual learner is in finding quality instruction in scholastic institutions that are wholly inadequate and indifferent to the learning needs of artists. There are many schools without art programs, or with part-time programs with limited schedule accessibility, programming, and poor quality of instruction.

In Ken Robinson’s book *The Element*, Matt Groening, the creator of the animated show *The Simpsons*, describes his dismal experiences as a high school art student. The students and teacher would be sitting around engaged in conversation all period, with little if any instruction or production. Groening noticed the pile of paper and paints at the sink that no one was guarding or using. He helped himself to the supplies and began producing a substantial amount of work on his own, without instruction. The instructor, after noticing the art supplies had been used, rather than being supportive of Groening’s initiative and desire to produce, became irate. That was the summation of his high school art education.

My own high school experience was not as bad, but was equally lacking. The production was activity-based, without the critical and reflective thinking necessary for learning. There was very little contact with the instructor during the production of the assignments. It was a continuation of elementary art

where the space, materials, and assigned tasks were provided and, no matter what the production outcome happened to be, it would receive non-critical encouragement. Imagine taking an algebra course where every question answered, even incorrect ones, were not only being graded as correct, but also praised for creativity and imaginative thinking, receiving encouragement to continue. The student would feel like a brilliant mathematician right up to the point where they run into quality instruction and the illusory bubble bursts. That is the unfortunate nature of formal discipline instruction in the visual art programs. What is termed as creative, imaginative, and experimental productive thinking is given precedence over formal, visual, academic learning. The result is that the skills necessary for expression of the imagination are never developed.

In *Art Education and Human Development*, Howard Gardner states “Few art teachers know much about historical, critical, or aesthetic issues, and relatively few practicing artists are concerned with perceptual, conceptual, or reflective issues, except as they arise in the course of fashioning an art work.” Through conversations I have had with art students while teaching in TAG summer programs and museum studio classes, many students’ descriptions of their instructional experiences mirror my own high school experiences of decades ago. The students have an intuitive sense that the instruction they are receiving in their school is lacking, and what they desire most is instruction in skill as well as critical, constructive critiques of their work. In many cases, the student’s work is equal or superior to the skill level and quality of the instructor’s work, creating a teacher-student cooperative interaction that resembles the blind leading the blind, which is ironic, considering it is a “visual” art course. Teacher versus student skill and knowledge is easy to compare in a TAG summer program where both high school students and certified art teachers in a recertification course are receiving the same instruction and performing relatively on the same skill level as one another.

When secondary art instructors’ skills and visual knowledge are equal to or less than that of their students, it becomes difficult if not impossible for students to receive quality instruction for the formal disciplinary knowledge necessary for the mastering of visual thinking and production skills. What makes this ineffective and limited learning environment inexcusable is that there is a need for skilled artists within our society. The Arts have always been among the top ten and often within the top 5 job producing industries in the US. In his book *The Element*, Robinson’s research indicates that the arts will be among the sustained growth industries in the twenty first century. Without proper instruction, a student is at a disadvantage in applying for post high school art programs in quality and reputable art education institutions. Poorly and untrained art students, as well as non-artists, are susceptible to lesser institutions that exchange tuition for degrees providing insufficient instruction and setting standards too low, making the career goals of its students unattainable.

I imagine that most secondary art education programs, like mine, have what I term the “Candide” curriculum. The Candide curriculum exists in the best of all possible worlds, or, in other words, operates in the reality of the surrounding world. If one could live in the pristine world of the imagination or the delusional world of a Walter Mitty, then the ideal curriculum would resemble Gardner’s proposed curriculum.

Gardner’s curriculum consists of integrating one’s perceptual and motor knowledge of artistic production, the reading of the manifest representational content of works, various bodies of knowledge about art, including historical, critical, and philosophical investigations, and the kind of hands-on production skills that arise as a consequence of hundreds or thousands of hours at work with a medium.

For the goals of an art curriculum, Gardner suggests that students should be competent in artistic production in at least one medium, should possess developed skills in looking at works of art, including those of masters, contemporaries, their peers, and their own work, should possess some understanding of the artistic process, and should be rooted in the historical, philosophical, and cultural traditions of art in their society.

Production practice is one of the least understood components of the arts curriculum. Art students, art teachers, and school administrators don't understand the relationship and importance of the many hours of practice to skill development and production. Visual art, more than any other arts discipline, is too accepting of the mythical and misapplied word "talent," and consequently lack what every musician knows: To be able to perform skillfully and at a high level one must practice and the practice must be disciplined, productive, and informed by formal instruction. The genetic predisposition of visual intelligence is of little value without the hundreds of thousands of hours of practice. Every professional artist knows that when practicing stops, skill level quickly diminishes. This is not only important for students to know, but it is essential for school administrators to know as well. Teachers who don't practice their art lose at a rapid rate the production, motor, and thinking skills necessary to instruct their students. Productive practice must be a major component of an art teacher's required professional development.

The teaching practices of art at the high school level are markedly different than in academic classes. In art, the formal bodies of knowledge are transmitted and acquired through the apprenticeship method of teaching. Teacher knowledge and production skill is the nucleus the curriculum revolves around and student potential and limitations are set by the competency of the teacher.

In the ideal curriculum, the knowledge of art history, the ability to discuss works of art critically, and the ability to discuss and implement the formal elements of art are important bodies of knowledge to be assimilated into the high school art student's visual thinking and production skills. However, as Gardner points out, when art programs are restricted by limited availability, the priority of art education must be on the development of production skills, knowing that there will be time for the remainder of the essential bodies of knowledge to be studied in college.

The fifth and final step in Gardner's developmental system is **skilled knowledge**, occurring at the college level of study and beyond. The field of study for apprenticing students becomes narrowed and focused to a few or a single, specific discipline to be mastered. Students, in the final steps of the apprenticeship, become autonomous in self-directed learning that incorporates all acquired formal bodies of knowledge to achieve mastery of the chosen discipline. In the arts, discipline mastery is never static, and through ceaseless acts of creation and reflection, higher levels of understanding and mastery are achieved throughout the productive life of the artist. The production of art is never an easy task, and with each development comes awareness that much more skill development and refined visual thinking is possible. Picasso, in spite of all his success, could not escape his own production demands and expectations. The degree of challenge he faced in his continued production was well documented in his temper tantrums. Many art historians consider Degas' best work to have been produced after the age of fifty. For the artist, learning and skill development is a constant and active lifelong activity.

In concluding the developmental steps of students and before continuing with observations that I perceive to be appropriate professional development for art teachers, I would like to quote a paragraph from Howard Gardner's essay *Art Education and Human Development*. The paragraph is from the

chapter titled *New Constituents of Art Education* on page 42. I prefer not to paraphrase and risk massacring such an elegant and impassioned defense of the arts in the hostile scholastic environment. Gardner, in defense of visual art, comes close to creating an art educator's manifesto for the procurement of equal footing of the arts with presently valued academic subjects.

"My impassioned (and somewhat countercyclical) feelings about the need to keep artistic production central grow out of the earlier arguments about different forms of symbolization. Virtually definitional in the visual arts is the capacity to deal with visual-spatial kinds of symbols----- to think in terms of forms, what they represent, what feelings they can express, how they can be composed and combined, and what multiple forms of significance they can embody. Some of these issues can be confronted via verbal and logical forms of symbolization---- the forms normally favored in school. But many individuals with deep involvement in the arts believe that such "talk about art" is an ancillary form of knowledge, not to be taken as a substitute for "thinking" and "problem solving" in the medium itself. It is because this form of knowing is so precious, and yet so threatened with being overwhelmed by the more typical scholastic modes of symbolization that I call for the protection of artistic forms of symbolization. And, relatedly, because there are many students who possess this particular flair, while lacking equivalent linguistic and logical skills, we must make sure that one irreplaceable form of human symbolization remains vividly present in the schools. It would be a tragedy if more conceptually based art education became yet another venue for verbally talented children to "show their stuff," while ceasing to provide a preserve for children with special visual, spatial, physical, or personal talents."

The Querulous Polemic

Where Do We Come From? What Are We? Where Are We Going?

The above title of a Paul Gauguin painting is indicative of artists' constant search for an identity of being and a meaningful understanding of the world that surrounds them. As previously stated in chapter two, I am actively and intuitively searching and synthesizing the research that accurately describes the learning, thinking, and behavioral patterns, having fidelity to what I have both witnessed and experienced as an artist and teacher. I lack the authority to speak knowledgeably on higher education, but I can use experience to form the reality of education to individuals sharing a similar cognitive profile. Up to this point in the chapter I have stayed within the parameters of stage development defined by cognitive theorists. I now wish to take the liberty at times to side step the formal institutional language of education and oscillate between the tandem of experientialism and consequentialism that comprises an individual's personal and professional potential. My contention is that education is not just formalized learning but rather the consequences of the conglomeration of varied personal experiences.

Chapter Two began with Nietzsche searching for the relationship between the language symbol systems and the reality of the individual. My interpretation is that words have definitions but they lack the meaning that is acquired through human experience. Standardized education, as a concept, is a bodiless abstraction formed and defined by words and other symbol systems that have little relationship to the many individuals to whom it is applied. Education is a discussion of standards devoid of individual interests and genetic predisposition. The self-serving, state-sponsored, educational system manages the human ecosystem with all the delicacy of a strip-mining corporation focusing on its own profit. Those who survive must rebuild from the rubble of educational processing. Failure to understand the sorting

and subjugating nature of an institution that damages self-worth while devaluing individual special interest skills and knowledge often makes the reconstruction and restoration of an individual a challenging task. Individuals must understand their cognitive profiles and value their skills and knowledge while understanding the nature of their limitations. One's individual binary code of strengths and weaknesses create the knowledge for choices to allow one to successfully navigate within a discipline domain that is aligned to one's cognitive profile.

The problem many artists have is that, as I have described in chapter two, they are different and learn differently than non-artists; as well, they are an isolated minority in most communities. Without the interaction of other artists, they can only compare themselves with non-artists and to the measurement of educational standards. They lack the understanding of what normal behavior and thought patterns are for artists. When artists come together for the first time to form a community, they quickly recognize they are in the company of like individuals and they discover how similar they are in comparison to other artists.

I witnessed such occurrences every year while instructing in a summer visual art **Talented And Gifted** program that required high school art students to live and study on campus for a month. They greatly enjoyed being around individuals like themselves, forming friendships, comparing work, exchanging ideas and receiving quality instruction. My own experiences of being enrolled and participating in an art school after high school was the same experienced by the students in the TAG program. Artists need their own community and learning environment. This need never changes and is the reason artists form groups and cooperative galleries, and participate in exhibitions, attend lectures, and visit museums. I teach in a regular high school and it is an excellent environment to work in, but I have little in common with the administrative and teaching staff. The sense of belonging for me was always the month in the summer when I was working with a faculty of artist-instructors in a community of art students. Discussions were fast-paced, non-linear, competitive, and stimulated the imagination. Our family albums consisted of our portfolio presentations showing recent and changing work. It is the time when the world becomes most alive and one is entirely immersed in one's element.

How one gets to that point of being begins with the two theories of Gardner and Storr. Howard Gardner posits that the visual artist is born and has what he terms spatial intelligence. As an infant, I was described as slow to develop speech, and even after speech, was still quiet compared to most children. A major characteristic is that I must see to understand. I better understand conversations and oral questions where I can both see the individual or view and read a text. There are times when oral language simply doesn't register and I become echolalic to repeat and sort the meaning of the words. While working on art, I often lose the ability to speak completely. In the manic stage, thought can accelerate so far ahead of speech that the words get lost. In depression, thought and words disconnect all together. My thinking is non-linear, and on occasions, the subject or topic of conversation changes with each sentence. This nonlinear manner of talking works well with my artist friends where the conversation becomes interesting and challenging. However, I have had non-artist acquaintances simply ask me to stop talking. These persistent characteristics determine my interactions with others and, to this day, I prefer to see rather than to talk and, when talking, I enjoy imaginative conversations involving visual imagery. Portrait painter Alice Neel bludgeons this point with this assertion that "Art is not as stupid as human conversation."

Many artists are most comfortable and compatible around art and other artists. I am in agreement with Gardner's theory that I was born an artist. Three other family members also possess Gardner's spatial Intelligence. My mother had an interest in art and was an untrained, amateur, artist throughout her life. My older brother had the ability to draw, but was not an artist. He employs his spatial intelligence in the commercial trucking industry driving long distance truck route, while my younger brother has spent his entire career as a graphic artist in a public broadcasting company.

Anthony Storr suggests that an artist is hardwired before the age of five, which is caused by environmental circumstances usually occurring in the home. When a child's environment is stressful, or does not make sense, the child escapes into an inner, self-contained world for protection in an attempt to make sense of the outer world that he or she can neither control nor understand. This mode of retreat is sometimes associated with infantile escapism, labeled by Freud as a characteristic of the artist. Freud's astute but unflattering assessment is probably the result of his well-known lack of appreciation for the visual arts. Albert Einstein, however, championed the counter knockout punch to Freud's belittling characterization of the artist while supporting and giving reasoning for the artist's escapism: "One of the strongest motives that leads men to art and science is the escape from everyday life, with its painful crudity and hopeless dreariness, and from the fetters of one's own ever-shifting desires."

Having a father with cyclothymia, which is a milder version of the manic depression disorder, certainly qualifies as an unstable familial house of terror. In my case, as well as that of many other art colleagues I have known with similar backgrounds, Anthony Storr's theory qualifies as a very believable artist-making scenario.

Kay Redfield Jamison provides a hereditary genetic enhancement of the artist's creative abilities in her book *Touched with Fire, Manic-Depressive Illness and the Artistic Temperament*. I consider the manic depressive disorder an auxiliary part of the genetic predisposition that usually becomes apparent in adolescence and early adulthood. According to Jamison's research, mania is an essential element in creativity and the behavioral characteristics of the bi-polar individual are synonymous with the "artistic temperament" of the artist. Jamison asserts that the bi-polar disorder is not responsible for creating the artist, but instead is an amplifier of the artist's creative thinking abilities that are applied to the skill set possessed by the individual's genetic predisposition.

Arthur Koestler's assertion that artists have a revolving door to the subconscious mind simply means that the mind, while in a manic state, has greater access to the brain's storage. The separation between information stored is nonexistent, allowing information to freely flow and form connections that hadn't existed before, creating new ideas and concepts in an altered state of consciousness and reality, comparable to the conscious awareness one experiences while dreaming. Everything is synthesized into productive use, and ideas seemingly come from everywhere. In this cycle, the artist's critical and reflective thinking succumbs to increased perception, bolstering an inflated ego that allows little restraint on both the artist's creative production and behavior. In the manic state, the artist's mind is in a continuous production mode, working at an accelerated pace, with extended production time. This is the elated and productive state, an addictive and greatly desired state that the artist craves and will do anything to maintain or attain.

The opposite cycle is depression. Mania, while in a productive and not extreme state, is an exhilarating high, while depression is an incredible and painful low. In this cycle, the mind grinds to a halt and nearly if not all productions stops. Self-reflection is amplified and turned inward, becoming a critical self-

destructive force within the artist. In this cycle, the artist's merits and achievements are reversed and viewed as failures, and existence is questioned. The mental pain of depression exceeds physical pain and physical injury can become a welcome relief to depression. It is an incessant pain and self-devaluing cycle where reason is distorted and suicide is errantly viewed as a logical solution. The artist will do anything to get out of the cycle. According to the information presented by Anthony Storr, a creative act is an antidepressant, making continued creative work a source for lessening the symptoms of depression. The goal is to move self-awareness to a focused awareness of creating an external object with a separate identity, such as an artwork. Research has also indicated that music is a pain reliever and I have always found a constant stream of non-lyrical music helpful to elevate mood and focus. The more mathematical and complex the music, the more effective I find it.

In between these two cycles is the neutral point where the artist functions normally and is rational and productive. It is in this state that the artist can sort and solidify productive gains from the manic cycle. The cycles are the cause of the mercurial mood swings and actions stereotypically associated with the "artist temperament" or "temperamental artist". The manic depressive disorder always requires drugs, either medically or self-prescribed. Many are fearful that psychiatric intervention treatment and pharmaceutical drugs would alter or interfere with their creative thinking and productive processes and rob them of the benefits of the illness on their art, which is the predominant source of their personal identity.

Ernest Hemmingway attributed a prolonged writer's block to his shock therapy treatment, which became a contributive factor in his suicide. The fear of losing one's creative ability is the reason so many artists turn to mood modifiers like heavy drug and alcohol use. The manic depressive Arthur Koestler describes his heavy escapist drinking binges as "an infinite well-being which abolished the future and the past, and made the present moment the sole reality, aglow with life and meaning". To balance his excessive mood-modifying drinking, Koestler also took amphetamines to enhance his creativity and to insure his artistic production schedule remained active and unchanging. The intense focus, acceleration of thought, and euphoria are similar to the manic cycle, which is what makes taking amphetamines so alluring to the bi-polar individual. Koestler's regimen of self-treatment exacerbated his emotional stability, but more importantly to Koestler, it provided the artistic creative and production stability necessary to anchor and sustain his identity.

An individual with the disorder has three distinct personalities that fluctuate and change both rapidly in short periods or over longer extended periods of time. Drugs and alcohol offer a consistent mood and state of being, and in the non-productive state of depression, offer relief from the psychological pain. In the manic state, they eliminate what little inhibitions remain and heighten the exuberance of the elevated mood and creative state. Just as drugs offer a sense of predictability in mood, a vocation can offer a stable identity. With three distinct personalities there can be no self-identity and personal identification must be attached to an external concept of being, such as an artist. This sense of identity is expressed by Emille Zola's statement, "If you ask me what I came to do in this world, I, an artist, will answer you: "I am here to live out loud."

Average people have a stereotypical view of artists based on their misconceptions and limited knowledge of high profile manic-depressive artists such as Van Gogh, Hemmingway, Byron, Pound, Pollack, Schuman, and Cobain, to name a few, all of whom exhibit "bizarre" behavioral traits. Kay Redfield Jameson describes the bi-polar characteristics so often associated with the artist temperament

“as an inflated self-esteem, as well as a certainty of conviction about the correctness and importance of their ideas.” Poor judgment leads to “chaotic patterns of personal and professional relationships,” and other features of the disease include “spending excessive amounts of money, impulsive involvements in questionable endeavors, reckless driving, extreme impatience, intense impulsive romantic or sexual relations, and volatility.”

Not all artists have this condition, but it seems the exceptional and most creative did possess it. In the summer TAG (Talented and Gifted) program where I taught, there would always be a substantially higher ratio of students with mental disorders than typically found in regular scholastic settings. To my thinking, a mental disorder implies greater self-reflection and sensitivity. This is the basis for Arthur Koestler’s theory of dividing emotional existence into the trivial and tragic planes. The trivial is the day-to-day unfeeling existence that has no artistic production value. The tragic is the heightened state of emotional awareness of surrounding circumstances in relation to subjective interpretations that become the source of creative production. Koestler’s assertion is that the artist spends far more time in the tragic plane of existence than the non-artist. A term more commonly used to describe this condition is the “sensitive artist.”

I inherited the bi-polar gene from my cyclothymic father, as did the rest of my siblings, who will pass it on to their children. The difference between my siblings and me is that my gene was switched on while theirs was not. I am an artist with the disorder and my brother is an artist without the disorder. Although being an artist with the disorder, I lack the extraordinary and innovative creative capabilities of Michelangelo, Vincent van Gogh, or Jackson Pollack, proving that the manic-depressive disorder is not the cause of one becoming a great artist.

I know artists who have other artists in their family, but equally I have known many artists that haven’t any traces of artistic influences in their family history. A perfect example is Picasso’s artist-instructor father who encouraged his son’s artistic development, while Matisse’s non-artist father did everything he could do to discourage his son’s artistic aspirations. Another path to determining Gardner’s genetic predisposition is with Joseph Campbell’s advice to his students, which was to “follow your bliss.” Following one’s bliss means the inner-self is the true self and is self-knowing. Following one’s desires is the only way to find one’s true identity – to become what one was meant to be. It is also his prescription for finding true happiness in life, which is identical to Ken Robinson’s term of finding one’s “element.” Those who come from a family of artists have far less vocational resistance to the arts, as compared to those artists who face considerable resistance from non-artistic families. Many are willing to give up or are forced from following their “bliss” or finding their “element” for the pursuit of what one presumes would be a financially secure, but usually unhappy life.

Back to the Future: The Polemic Diatribe Continues

“Being in prison leave its imprint on you for the rest of your life.” Arthur Koestler

Although school is not exactly a prison, it is a compulsory sentence to be served and does leave an indelible imprint on the rest of one’s life. One enters school anticipating that the educational institution will work towards the development of individuals, but in actuality it ends up working against individualism. As a student, my individual skill was undervalued and unmeasured, and I became known instead for the skills I lacked. Today in school my skills as an artist and the ability to teach those skills are recognized and valued, whereas my limitations of the other academically prized symbol systems play

no significant role in my professional life. They were as Nietzsche suggested from his own educational experience, nothing more than “indigestible knowledge stones,” which is what makes compulsory education so tedious.



Upon entering school, children are as close to equal and universal in their expression as they will ever be. The drawings above, by two-year-old Jasper Girard and his five-year-old brother Asher, have all the universal characteristics of children’s drawings, yet at the same time they are also imaginative, individual expressions of a child’s creative thinking. What becomes amazing is that they will all split from this universal state and become distinctly different beings – some as artists, musicians, scientists, dancers, athletes, mathematicians, etc. The point Gardner makes is that the individual’s direction is a predetermined genetic choice; my contention is that an individual can’t be manufactured to meet standard specifications in a school system that functions as an assembly line.

A rather ironic example of genetic predisposition is Charles Darwin. In nineteenth century England, the Latin and Greek based classical education was highly valued among the upper classes, while an education in the sciences was looked down upon. Darwin was ridiculed by his father for his poor performance in his classical studies. His academic failure was the result of his personal interest and genetic predisposition. Darwin, who appeared to be an academic failure, turned out to be hailed as a scientific genius.

Although artists may be a product of their genetic predisposition, there isn’t any clear or consistent pattern in the visual learner’s academic performance. As stated, my vision is more attuned to patterns and not linear eye movements conducive for reading. This quickly causes fatigue and loss of mental alertness, and after a few minutes I am falling asleep. I do a reading survey with all basic art students to assist in determining how they see. Each year there are always a number of students who indicate reading fatigue that occurs rapidly or within an hour of reading. Many of the students indicating fatigue are not artists; neither do they match my visual pattern, indicating that the underlying problem extends beyond the traits specific to the visual learner. I now suspect the cause of this reading fatigue to stem from the oftentimes hard to recognize and diagnose - dyslexia. Most who indicate reading fatigue, like me, perform poorly in their academic studies. With reading being the primary means of content learning, it is little wonder that students who experience reading fatigue and loss of mental alertness

while reading have difficulties with their academic study. The scholastic system is obsessed with timed tests, and I cannot understand the perceived relationship between recital speed and intelligence. These timed tests work against those who see, think, and process information as I do, and others who indicate fatigue while reading.

Some individuals are evaluated and given IEPs (Individualized Education Plans), which often permit more time on tests. However, added time does not restore mental alertness. The only way to remain alert and focused is with stimulants or the latest drug of choice: Adderall XR, an ADHD prescription used for mind performance enhancement by many college preparatory high school students. As with all performance enhancement drugs, these students use them to gain a competitive advantage over other students. Since reading is an essential part of education and a major performance determinant, most who read poorly don't readily admit to it, fearing the stigma of being labeled as lacking intellect or, its worst expression, being "stupid." Denying and hiding weaknesses or perceived faults is a part of self-protection. One's disadvantages and disabilities can be hidden and ignored, compounding the underlying problem while manifesting other visible problems.

Writing in the classroom or writing during a test is conscious writing, which uses four percent of the brain, with limited access to the vast memory storage of the subconscious mind. The best way to write is to engage in writing, then fully engage in other activities or sleep, to allow the mind to access and formulate solutions to problems posed in the initial writing task. This is the time-tested formula for those with creative minds. An interesting analogy is the hare and tortoise method of thinking. In the hare method, the conscious mind is chasing after answers and solutions. In the tortoise method, the conscious mind waits for the unconscious mind to bring it answers and solutions. It is a slower process that utilizes more of the brain and yields greater results. In *The Act of Creation*, Arthur Koestler cites numerous scientists experiencing the precognitive dream of finding their sought after solution in their dreams: Paul McCartney waking up one morning with the song *Yesterday* fully formed and written in his head, and writers who begin writing with little direction, knowing the process will generate the writing. Dostoevsky would write chapters and nearly complete books only to toss them out because they led to a better idea - one that couldn't be reached without going through the creative writing process.

When writing, I consciously generate the fundamental ideas I wish to express, and then focus on other activities. Once the writing has begun, I often find my subconscious-self writing in my sleep and waking during the night with ideas and corrections. When I proofread the following day, I return with an expanded vocabulary and easily make corrections with expanded ideas and concepts. Similarly, Virginia Woolf enjoyed her breaks from writing with the focused activity of typesetting for the Hogarth Press publishing company she and her husband Leonard Woolf operated. While her conscious mind was occupied setting type, her subconscious mind was busy writing her novel.

For me, writing is also a non-linear task. As writing progresses and more becomes known about its content, it becomes necessary to add or rewrite earlier passages to correspond better with the current state of ideas and to add continuity to the writing. This process of writing continues nonstop for days and months. This is how my intelligence is adequately expressed in writing, not by a quick time-framed exercise of the four percent potential of conscious writing. This, coincidentally, is the same process I go through to make a painting. I begin with an idea and it expands and becomes clarified during several months of dialogue. I physically and consciously work on the painting each day in my studio and each night I paint unconsciously in my mind as I sleep. Upon returning the next day, my mind knows exactly

what to do for an ever-changing painting. As this process continues for months, the initial subject expression remains open and flexible to change, and a final conclusion always remains unforeseeable until the initial idea is completely formed by the working process and dialogue of both artist and materials.

I paint and write in this manner because it is the way I think and it is the way I understand the creative process. This is an open-time process, versus the artificially applied constraints of closed, measured time. There are a number of published articles, documentaries, and books on the interactions of the conscious and subconscious mind in the learning and creative processes.

Most of my advanced art students indicated reading fatigue but were mostly high academic achievers. They do see in a similar manner as I do, and commit similar visual-linear mistakes as I do, and although art is important to these students, none of them intends to be a professional artist. The distinguishing difference is that an artist can do nothing other than be an artist, and therefore they are not artists. I would categorize them instead as visual learners. The similar traits are that they do get fatigued, with diminished alertness while reading. They can misread or reverse a sentence's meaning, a thought or a paragraph, and they can transpose or complete answers in the wrong location. What separates their academic success from my academic failure and that of other students who experience reading fatigue is that they are highly disciplined and motivated to succeed in their academic studies. They have the self-discipline to take the extra time required to read and reread until they understand the designated content and are equally disciplined to prepare for test recitals. These students are motivated by an interest outside of art and see academic success as serving their self-interest goals.

Conceding that a more disciplined approach to my academic studies would have yielded improved results, but still with limitations based on how I am genetically programmed to learn, I will begin the defense with Howard Gardner. Artists operate and think in a visual symbol system that is different than the language symbol system favored in academic subjects. Gardner states that "there are many students who possess this particular flair, (visual art skills) while lacking equivalent linguistic and logical skills." This statement echoes my assertion that I am not unique but among many who struggle with the learning modes and standards of scholastic instruction.

Reading is just the seeable tip of the iceberg, while the systemic problems reside below the reading text's surface. To begin with, I have no ear for words and I have never been hooked on phonics. If you can't hear words, you can't spell, read, or pronounce words correctly. Another problem is the changing phonetic sounds of a letter or group of letters that, of course, correspond to some arbitrary abstract rule agreed upon by linguist occultists plotting to make everyone sound foolish except for the most ardent etymologists and philologists. The language symbol system has a notation system with a sub-notation system to explain the primary notation system.

Example: cognition cog-ni-tion [kog-**nish**-un n]

This binary structured notation system negatively affects my cognitive function, which had a major effect on my scholastic achievement. I am now throwing effect and affect on the carousel of confused words I have never grasped when or how to use. Their similar sound makes it impossible to detect their usage in oral language, just as the words granted and granite and many other word similarities have at present and in the past. However, as an artist operating in a different symbol system, this phonetic conundrum has no noticeable effect on the way I teach or affect my student's learning. While writing

my discordance on effect and affect, I was assisting a very competent student with her painting, showing how an applied technique would affect her painting. While helping her I asked if the word used was affect with an A or effect with an E. The artist's response was "I don't know." At this point I sound the part of a quixotic artist crusading for linguistic tolerance and notational pardoning for all visual artists. However, I am merely jousting with the windmill words seemingly too giant to phonetically master. To this day I can't spell. The computer and e-readers were built for people like me. Every day when I write it becomes a game of stump the spellcheck. Sometimes the words are so misspelled the spellcheck hasn't a clue as to the word I am trying to spell and it takes a few minutes of systematic misspelling until the computer, taking a stab in the dark, guesses correctly.

Recently I have discovered that what I have described above are symptoms of dyslexia. I always have my antenna up looking for clues as to how my brain operates to determine just exactly what went wrong or what made academic study so difficult. While listening to an NPR broadcast describing the experiments of language processing and brain function on epileptics, it was mentioned that individuals with dyslexia do not process phonetic sounds correctly. This became an "aha" moment, and a quick trip to the Internet to check out symptoms confirmed my suspicions. The traits characteristic of dyslexia fit like a glove. Also mentioned was that those with dyslexia are prone to being artists and daydreamers. While at the TAG program, I took an informal survey and discovered three of the four artist-instructors that were present acknowledged being dyslexic. Recently I polled three of my top art students at school and two of the three acknowledged having symptoms of dyslexia. Obviously dyslexia pushes one away from the language arts and into different disciplines that use a different symbol system. A complete list of symptoms can be found on the web at <http://www.dyslexia.com/library/symptoms.htm>. The article also indicated symptoms are often unrecognized and undetected, causing learning difficulties for individuals with dyslexia.

The creating mind, as Author Koestler suggests, is one that "bi-sociates," which is his term for the association of formerly dissociated ideas. I would define this as making nonlinear connections through free associations. Examples would be Darwin's utilization of Thomas Malthus's *Essay on the Principles of Population* to provide the structure for his *Theory of Natural Selection*, or Johannes Gutenberg's ability to see how a wine press could be turned into a printing press. Another example is the poet or song writer's ability to free-associate words into rhythms or rhymes to create a coherent universal narrative. A strong example of both word rhythms and rhymes is the earlier works of Bob Dylan that can be seen and heard in Martin Scorsese's documentary *No Way Home*. The creative writing of artists is the cross-symbolization of words. Words are used to create images and are defined by the images they create. James Joyce is a master at creating visual symbols from words. Among my favorite image-symbols is from *Portrait of the Artist as a Young Man*. Joyce's image symbol captures the social restraints placed on life. "When the soul of a man is born in this country there are nets flung at it to hold it back from flight. You talk to me of nationality, language, religion. I shall try to fly by those nets." The artist, as well as everyone, thinks in images and not in the notation media of words, pictures, or mathematical formulas. These are merely translations of mental images we call thought. Aristotle phrases this as "the soul never thinks without an image." A poet or writer translates thought images into words; a physicist like Einstein translates the image of a falling coin in a falling elevator into the theory of relativity and uses a train traveling at the speed of light to illustrate the theory for those who can't read the physicist's notations.

Most all creative individuals are in a constant state of free association. One word, idea, image, sound, feeling or thought can set off a chain reaction that creatively leads to an unknown destination. The chain reaction is an altered state or stream of consciousness and the individual shifts from an external to an internal reality subservient to the chain of actions that flow from both external and internal stimuli. One of the best examples would be improvisations performed by musicians. Jim Morrison of *The Doors* would always include a segment in his performances for free associating improvisation. His band members found it both exhilarating and frightening because they had to improvise and follow his lead while not knowing if his artistic direction would lead to appreciation or a riot. Jazz musician Miles Davis, in awe of his pianist Keith Jarrett's improvisational skills, asked "How do you do it?" Jarrett's reply was "Do what?" He simply stated in an interview that he was feeling and responding to the music and was unaware or "unconsciously aware" of what he was doing. The unconscious awareness is the slim margin between consciousness and sleep. The artist projects into his painting, the writer into his writing, the dancer into his dance, and the actor into his role. The catalyst, providing skill and knowledge have been developed, is the imagination. Imagination is the ability to leave self-reality into the projected reality of an art form. Portrait artist Alice Neel describes her experience with projections: "I go so far out of myself and into them that after they leave I sometimes feel horrible. I feel like an untended house. I have been living in them for two hours so to go back to myself is sometimes difficult." For me as an artist there is no greater emptiness than to be in between works of art. The projection into a sustained creative work process is an identity and emotional stabilizer.

Another common name for this type of projection is absent-mindedness, where the thoughts and mind of the individual have left the body. In creative individuals, this is a common occurrence in which the individual is viewed by others to be distracted easily. When the mind is projecting into itself to pose, probe, and resolve ideas, external interruptions become a distraction to the perceived absentminded, daydreaming, creative individual. Einstein was distracted by his own ideas and showed little interest in fulfilling the expectations of others, which contributed greatly to the fact that none of his professors would consent to giving him a recommendation upon completion of his university studies. One professor thought him a lazy dreamer that would accomplish nothing in physics.

Creative and self-involved individuals with their projections and daydreams are viewed as being distracted from the restraints of institutional learning. Gardner lists daydreaming, mental imagery, image manipulation, and active imagination as some of the core capabilities of artists possessing spatial intelligence. These are all "one-foot-out-the-door" characteristics that are distractions from classroom study and learning. The self-involved mind, disinterested in the activities of the current moment, easily wanders on its own, or the imagination is given a direction by a picture, word, phrase, action or interaction. I don't think I could describe the difference between the words imagination and daydream. However, I think a case can be made that the world is changed by the dreamers rather than by attentive classroom students lacking the imagination of dreams. The film *City of Lost Children* provides a surrealistic example of a world without dreams portrayed as a world without imagination in cultural and social decay. The dreams of the dreamer are critical to both the learning and creative process that becomes a part of the substructure of human existence. Society and culture cannot progress without those whose dreams become reality.

The next line of defense is from Karl Marx's theory that individuals are the product of their social environment. Schools sort and classify. One is sorted by the perceived and desired needs of a society defined by its required scholastic standards. Sorting by scholastic achievement creates a social caste

system that often restricts social mobility by creating academic and social barriers - such is the adverse effect of American society's misguided educational priorities. Lower performing students have little scholastic or social interaction with higher performing students, creating a stratified and limited social environment. The restrictions of socializing with only low performing students engenders acceptance of social position and learning abilities.

In the school I attended, being in the lowest caste meant reduced academic expectations and lowered standards. Whatever the circumstances are that contribute to individual learning difficulties, they are both accepted and compounded in the unproductive and unstimulating learning environment created in the lower caste. In this environment, students are fettered to a labeling institution of containment where learning becomes a sentence: serving time until graduation. The antidote to this situation is to have institutions meet the needs of individuals by asking the proper question posed by Ken Robinson: "How are you intelligent?" In this idealized utopian approach, the rhetoric of "No Child Left Behind" has the potential to become a reality. Maybe if the multibillion-dollar resources spent on standards development, testing curricula, and test assessment were reallocated to educate individuals, there would be fewer failures and more individuals reaching their potential based on the needs of their self-interest. Granted, these are unrealistic, utopian dreams because, in utopian idealism, everyone must be willing to work to achieve their potential within the binary system of their own abilities and limitations. This does not happen because too many individuals do not take responsibility for their own education. They merely accept the education that is given to them, and if that education doesn't fit their cognitive profile or learning needs, they are too accepting of the labels placed upon them by those who share the institution's value system.

The motivational and spiritual speaker Gregg Braden has a poignant story on applied standards. He cites an example of a young, beautiful, and intelligent woman who attained her dream job of becoming employed in a modeling agency. The agency, over time, requested the young woman to have a number of cosmetic corrective surgeries, from which she eventually died at a very young age. Gregg Braden, in his documentary, questioned the standards that the young, beautiful and well educated woman was being held accountable to that made her feel inadequate enough to cause her own death. The well-educated, successful, academic bureaucrats who devise standards are little more than modeling agencies, unrealistically creating what they want to see at whatever the cost to the individuals they are charged to manage. Applying Braden's question to the preferred student model of our educational system, how many dreams and lives have been lost to a universal intelligence standard that doesn't fit the broad spectrum of individual intelligences? Standards measure both success and failure. Success is empowering and failure is subjugation to the society that sponsors the institution.

Maybe what is needed is the catharsis Fyodor Dostoevsky experienced in prison, where the idealism of the intellectual met the practicality of the lower classes. The benevolent good sponsored by idealist intellectuals was of no practical use or value to the unreceptive working classes who lived by different standards in which intellectuals were out of place and ridiculed for their impracticality and physical helplessness. The less educated lower classes were dismissive of the intellectual's ideas because they understood that their livelihood and existence could be maintained, regardless of the academic external influences and standards. This remains true today. We have an educated class dictating standards and we have individuals who understand the meaninglessness of those standards in their individual lives. As long as an individual feels that social and economic existence is attainable outside of the educational requirements, standards will be meaningless to some. If one believes in multiple intelligences, then it

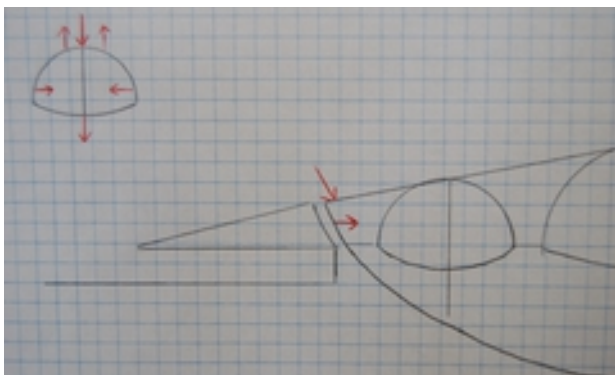
would stand to reason that there should be multiple standards. The lesson learned by Dostoevsky is that one must be accepting of a reality that addresses human individual needs that cannot be folded into a single idealistic mandate.

In an interview on NPR, individuals were discussing how non-academic courses met their individual educational needs. A couple of examples were individuals participating in industrial arts courses where they had the opportunity to learn hands-on, practical, skills beneficial to obtaining career opportunities. One individual remarked that it was the only reason why he continued to attend school. Because he enjoyed the course so much, he was motivated to try harder in his academic studies. Another individual tells of how an apprenticeship linked to the school program led to a career that he loved in the shipyards of Seattle. Their intelligence is working with their hands in conjunction with knowledge of materials and equipment to create solutions to real and practical problems.

These individuals should be viewed as practitioners of the practical world. However, our educational system does not value or measure this intelligence, which is the basis for the schism between the educated and working classes. Those who rule by intellectual decree survive by the labor of others, doing for them what they are ignorant and incapable of doing, such as maintaining their heating, plumbing, transportation, and even food preparation. Those of practical skill and knowledge merely maintain the operating systems of society, but do little more than exist in their society. The two factions form a non-productive parallax view creating an impotency in scholastic institutions and society. Too much time, effort, and capital is spent on what cannot be rather than on what can and should be. The two examples noted above suggest what education that is sensitive to individual needs should be rather than a benevolent concept of what standardized education blindly envisions it should be.

One of the issues being highlighted in the NPR report was that schools were cutting back or eliminating support for non-academic educational programming that provides valued and appropriate learning opportunities to students that have an essential role to perform in our society. The visual arts easily fall into this category and likewise are thoughtlessly removed or diminished from the educational curriculum of many learning institutions. Resources must be maintained for those like the above two individuals and for all arts, just as they must be for the highest academic achievers who can change our society and our world. Equality and respect for diverse intelligences must be a part of learning.

When I accepted my current teaching position I felt the need to establish the art department on equal footing with other academic disciplines. At the time, the science department had a bridge and tower building competition, and I took the opportunity to challenge the science department to a suspension bridge building competition against the art department. I had noticed that the science department was



using the non-thinking X construction as a means to evenly distribute the weight being applied to the bridge. Because the construction material used was of a very weak $1/8^{\text{th}}$ inch width balsa wood, I could easily see that a simple distribution of weight by the X system would be ineffective in sustaining any weight. The key to constructing a bridge made of an extremely weak material was not by distributing weight but by changing the direction of the force being applied to the bridge.

As an artist, I am used to seeing and studying composition and I'm visually sensitive to directional movement. I applied these skills to visualize a construction system that would change and reverse the direction of the applied force so that the weight of the force would be exerting its force against itself.

Below is a simple diagram of the system applied to the bridge construction. The drawing in the left corner is just the concept drawing and not the actual construction model used to build the bridge. I designed the construction so that the weight could be applied at the top of the bridge. The basic structure is the arch that has a vertical structure to move the force of the weight to the curved baseline at the bottom of the arch. As the force pushes the baseline downward, the side of the arch is pulled inward, forcing the top of the arch to move upward and push back against the force of the weight pushing downward. The bridge was built to be suspended over a twenty four inch gap between two desks and was built so it could shift and move in response to the weight being applied. The illustration in the lower right corner is the anchoring platform of the bridge that was designed to replicate the directional changing actions of the main construction system. The bridge also required construction techniques that included soaking and shaping the balsa wood and working out the elaborate track system required to have a bridge that holds together while its parts are movable. The simple structure of the bridge is a visual image of my imagination supported by my ability to see movement and force as if it were a pictorial composition. The mechanics of the construction were worked out by the process of building.

The competition was part of an evening fundraising event for the school and spectators were encouraged to bet on the outcome of the competition to win prizes. To determine the winner, the science department was going to apply a mathematical formula using the weight of the bridge, with the maximum weight the bridge could sustain before collapsing. The result was that the science department's bridge easily collapsed with only about thirty pounds of weight being applied. The art bridge, weighing less than seven pounds, sustained the weight of one hundred and fifteen pounds before the science department had run out of weights and could not continue the experiment conceding that the art department had won the competition. The bridge performed as I had visualized it would. The movement of its parts was clearly audible as it shifted and adjusted to the force being applied. The school principal in attendance was a little shocked that the art department eviscerated the science department.

My point in recounting this episode is that the science department was reliant upon unthinking content knowledge prescribed by a textbook as the scientific way of construction. The net result was that their mathematical and scientific skills and knowledge were no match for the visual thinking skills of an innovative, imaginative, artist who could see and oversee construction techniques and procedures. The abilities of the visual artist were overlooked until it was visibly demonstrated to them that the arts do have merit and do have an active role in learning. My students learned more from the project than their counterparts, the science students.

The design for the bridge shows how I see, which is substantially different from the way my adversaries in the science department see. I can construct a bridge model without math and science because they are foreign symbol systems to me. I solve problems with my eyes. Seeing is thinking and thinking is seeing. Origination is more important than production. Complete production solutions often come from multiple specialized sources. Einstein would originate a theory and would sometimes rely on the assistance of a mathematician to complete the notational formula. Architects such as Frank Gehry and

Frank Lloyd Wright would rely on engineers to solve technical construction and production problems. What is significant is that a creative individual generated the idea and then relied on specialists to finalize their original thoughts.

The science department was also easily defeated because the art department was competing against students required to take a science course and construct a bridge. Forced learning is not learning and they were not capable of the thinking necessary to devise a suspension system capable of sustaining any weight. Their thinking abilities were limited to course content exposure where the answers were provided for them. The students we competed against were not going to be scientists and no amount of course content exposure would make them scientists. They were textbook recitalists incapable of the creative thinking skills essential for any domain discipline achievement in the sciences or the arts.

The government from time to time broadcasts its warning that American children's academic achievement levels are falling behind those of the rest of the world: if our nation is to remain competitive it must raise academic standards. This querulous omen echoes Nietzsche's assertion that education is structured to serve the needs of the state and not the individual. In the book *The Field*, Lynne McTaggart reports that the US government has agencies that routinely search and review all scientific research to support and harvest any developments that would further its ambitions for Manifest Destiny. A physicist, in an interview on NPR, stated that one does not become a scientist out of patriotic duty because our nation is scientifically and economically falling behind the rest of the world. Scientists become scientists because they love science and have the special cognitive abilities to explore, search, and see with their minds and with a specialized symbol and notational system that forms the language that best expresses the ideas of their thoughts.

Not everyone is capable of reaching the highest levels of creative achievement that change the way those in a defined discipline or society think. Such achievements are only possible through genetic potential and learning opportunities, and not by artificially set, uniform standards. Nietzsche's prescription is that society must act as a support platform for those individuals who have the ability to elevate, change, and shape the progress of both culture and society. This must be achieved without the destructive nature of our learning institutions and society. National interests do not justify the means of its educational system. Arthur Koestler's affirmation of the individual is a fitting quote to be applied in opposition to our learning and governing institution: "I don't believe that the end justifies the means. I don't believe that an individual is the result of a crowd of a million divided by a million. I don't believe any more in humanity. I believe in the individual."

American Indian Movement activist John Trudell provides an example of the servitude inflicted upon the poorly educated whites and Native Americans who worked in the health hazardous, environmentally unsafe conditions of the uranium mines in South Dakota and Arizona for the cause of national security interests:

I discovered that my education wasn't as bad as I thought when I served in the army in the Vietnam War. It was impossible not to notice a high percentage of poorly educated whites and minorities serving in the combat zone. In an interview promoting his film *Platoon*, film director Oliver Stone made the same observation from when he had served in Vietnam. In the published article *Today's Vets Get Shortchanged on the GI Bill*, Glen C. Altschuler reports that only 20 percent of all Vietnam era servicemen and women took advantage of the GI Bill to obtain a college education. In retrospect, I believed many served not out of patriotic duty but as a result of their education, and the war straddled

the borderline between national interest and the practice of eugenics on an expendable segment of the American population employed to commit genocide against a third world nation resisting American interests. The National Coalition for the Homeless add credibility to my assertions by recording that 130,000 to 200,000 veterans are homeless on any given night, and of those 47 percent are Vietnam era Vets. Additionally, the documentaries *Sir, No Sir* and *The Winter Soldier* also give compelling support to my view point.

I think the examples cited above are a part of the cause and effect of educational practices and standards. I agree that there must be standards, but there must be standards for individuals. Likewise, individuals must be self-disciplined and actively pursue their potential for standards to be meaningful and effective. Institutions cannot override the genetic predisposition or free will of the individual; they must be careful not to get in the way of the individual. Education must employ the Hippocratic Oath to "Do no harm." But the reality is that individuals must take responsibility for their own education. Too often individuals are the cause of their own failure. Success and failure are choices, and every individual must accept the consequences of their choices and realize that not making a choice is indeed a choice, one with consequences that may not be in the best interests of the individual.

My advanced art students, who share many of the same learning characteristics as I do, have proven that learning is a matter of self-discipline. This is a lesson I learned late after my academic study was completed. It was not that I could not learn; it was because I chose to yield to difficulties in learning and did not apply the discipline necessary to learn. The amphetamines they prescribe for ADHD would have definitely made a difference in my education, but regardless of its effect on academic achievement, it would not have changed the outcome of becoming an artist. It would only have provided more opportunities and choices for how I was to become an artist. Most individuals dislike if not hate compulsory education and view it as an obstacle course one must negotiate in order to participate in life within a modern society. Arthur Koestler's prescription "sweat and toil is the price of knowledge" must unfortunately be applied to compulsory learning if one is to succeed within the educational system. Success within the system creates better choices and more opportunities in postsecondary education.

Professional Development

Formal knowledge and skill is acquired through the apprenticed relationship between a skilled and knowledgeable practicing artist-teacher and a qualified visually intelligent student. At the secondary level of education, limited art programming and skill instruction will have an impact on students' performance and weaknesses will be reflected in their portfolios. The portfolio is the visual documentation of the artist's visual intelligence and must reflect both students' creative and technical skills. When applying to postsecondary art programs, art students will be assessed by both their academic transcripts and portfolio. A transcript indicating high academic performance suggests a disciplined student capable of concept and content learning; all three traits are essential to becoming successful in the arts. The portfolio should be a visual reflection of one's academic transcript. It should indicate a disciplined course of study reflecting the knowledge of visual concepts and technical abilities. Visual thinking skills are valued and often have priority over academic transcripts. However, the most academically elite and highly ranked art programs such as at Yale place a high premium on academic achievement in addition to an applicant's visual thinking skills and performance.

Portfolio preparation is directly related to practice hours. Too often individuals wait until their junior and senior year to start building a portfolio. Too many students work in isolation or in a limited art program and aren't aware of the skill and knowledge necessary to gain entrance into a quality art program. To insure success, portfolio building must begin in the freshman year and will require a minimum of at least one hour per day of productive disciplined practice. More practice time translates into a higher level of skill and technical development, which strengthens the portfolio and greatly improves one's chances of getting accepted into a quality art program. The very best students are constantly practicing their art, logging in many hours per week, and are inseparable from their work, which has become their identity.

The portfolio is the first and most important impression an artist will make to gain entrance into one's program of choice. Volume of work in the portfolio is not as important as the quality of work. In the portfolio, a weak work will subtract or detract from the stronger competent works and the combination of weak and strong work will create the impression of inconsistency. One must edit by removing weaker works to create a consistently strong portfolio with both academic as well as creative works.

In addition to portfolios, some institutions will request assigned art projects to be completed and submitted with a portfolio. The uniformity of the assigned tasks makes the assessment easier for the institution to select and choose the highest quality art students for their program. The very best programs are selective because high student success rates and high profile successful artists form the basis for their reputation within the arts education community.

The art school/academy and the university/college are essentially the two choices in post-secondary art education. The determining factor is if one intends to maintain the option of teaching as a profession. The art school programs are all art courses offering technical training, while collegiate art programs are art training with academic studies and teacher certification. Each institution defines its programs and degrees offered. Two-year foundational courses followed by two years of specialization courses is the standard instructional approach by both colleges and art schools. The foundation courses are designed for student skill development and to align students with program assessment methods. After two years of foundational courses, the students are more familiar with both the institution and its programs and are better able to make informed choices to match learned skills to the specialized program best suited to meet their career objectives.

I have experienced both art school and university art programs and found the course work and expectations similar in both. I spent two years of foundational work in an art school and when the school unexpectedly closed and reopened under a new name and board I chose to transfer to a university to work on obtaining teacher certification. The switch from art school to university was lacking in compatibility and transfer credits were given grudgingly. It was not because the university had a good art department; it was due to their preference to develop students in their own foundational programs.

I found college to be an oversized high school, but with more academic choices that could be woven around an extended and more specialized study of art. I am sure I scored at the Neanderthal level on the timed SAT test and was allowed to enter college on probation. Once in college, I could schedule extensive reading content courses around art courses, making the academic requirement classes

manageable. I did substantially better in college than in high school, with a much higher grade point average. The SAT was designed as an intelligence test to verify high school GPA and predict college grade performance. My test results, by indicating academic failure, are in agreement with Princeton Review founder John Katzman's supposition that standardized tests such as the SAT are not reliable indicators for measuring and predicting academic achievement. The SAT test incorrectly measured my cognitive skills and my ability to adapt and learn in a flexible learning environment where choices are aligned to self-interest learning and career goals.

My learning experiences have always been in the field of fine arts, which is an altogether different discipline from the applied arts. In today's world, the applied arts require considerable knowledge and use of technology, whereas practitioners of the fine arts are allowed to have all the knowledge and finesse of a troglodyte (I'm envious of cave paintings); however, many fine artists have transitioned from traditional media to technology.

In the last quarter of the twentieth and in the twenty-first centuries, technology has rapidly expanded the means of expression in both the fine and applied arts. The disciplines have become too expansive for an individual comprehensive overview and now require specialization in both instruction and practice. My specialization is in traditional fine arts technique and media. However, progress in the technological applied and fine arts are still dependent upon the imagination and the ability to project and transmit mind image and thoughts to a product format to be experienced by a participant receiver. The methodology of all art forms is productive thinking, and the only change in the equation is the production technique. Technology is used to articulate the imagination through production steps to final form. Visual intelligence, and sometimes archaic drawing media, is essential to expressing initial visual thoughts. In Sydney Pollack's documentary *Sketches of Frank Gehry*, one sees the translations of architect Frank Gehry's imagination to visual representation in the form of simple line drawings. Gehry also discusses a composition of a representational painting being the basis for the design of one of his buildings. The documentary also shows how technology is integrated into the process and how some individuals within the architectural firm are far more technologically advanced in equipment use but lack Gehry's creative imagination.

In the fine arts, art education takes the Nike approach *Just Do It*, which consists of suspending learning and the use of traditional production methods in favor of exploration of materials and invention of technique. The shock of the new became the mandated formula for arts education fixated on the reductive construction and deconstruction of the dominant American abstract expressionist movement.

Robert Rauschenberg typifies this state of the arts through his erased de Kooning drawing, signifying both change in generation and productive thinking. Thought production had changed to the temporal production of thought. William de Kooning's drawing is thought production through construction and Robert Rauschenberg's erasure of de Kooning's drawing is the reduction of art to process, emphasizing the production actions of thought over the product object. It is a clever, complex, and thoughtful metaphor visually reiterating the changing paradigm from generation to generation.

Art has always been and still remains the elegance of thought manifested through a temporal act of production. The temporal act of thought production, not the product created by the productive activity, becomes the art subject. In the Rauschenberg/de Kooning erased drawing, what is defined as art resides in thought and execution of thought. The object (erased drawing) is known for what is not present and seeable, allowing thought and action to be perceived by the viewer. Art distilled to its

essence is thought projected and received, regardless of its productive intent. It is what all art has in common and all art, even art consisting of temporal action, creates a product to be received by the final equation in art: the viewer participant.

The parallax view of the Rauschenberg erasure was not erasing the past but using the work of the past as a platform to create the work of the present. In my experience with both the art school and university, the emphasis was on creating without a foundation. Creative and inventive modes of expression were “in” and academic art study was employed sparingly, if at all. One became one’s own teacher by experience, and presumably by guidance in the form of formal critiques by instructor and through peer participation. I cannot recall any formal instruction on materials and techniques other than the basics of canvas stretching and priming, which could be disregarded based on expressive criteria. There was nothing about paint, brushes, techniques, composition, comprehensive color theory, drawing technique or form. Our mandate was to create by whatever means possible. This is creating for the moment, and without proper knowledge of materials, such creations would quickly deteriorate. Work comprised of temporary materials needing periodic replacement, such as Damian Hirst’s shark in formaldehyde titled *The Physical Impossibility of Death in the Mind of Someone Living*, or works composed of incompatible materials, such as some of Ben Shahn’s or Robert Rauschenberg’s works, which required conservation to stop rapid deterioration. The emphasis was on creating and the mindset was if it was of cultural value then it could and would be saved. These artists, and certainly their works, are considered among the highest echelons of twentieth century art. The works by highly creative and intellectual artists continue to fuel the experimental and experiential modes of learning in both high school and college programs. I agree that this learning style and mode of thinking is not only needed but also should be considered the ultimate production goal of the artist. However, experiential experimentation should not replace academic training in materials and techniques. Academic studio art training is very much a part of art history, providing a foundation of technical knowledge for students.

The academic foundation provides students with knowledge that becomes a flexible set of rules that, once understood, can be intelligently broken for the synthesis of new materials, methods, and techniques aligned to creative productive thinking. Without the historical academic foundation of both art technique and history, exploration is generated from ignorance rather than knowledge and the net result is an act of ignorance. The opposite production situation is when an artist uses the academic framework as a crutch to produce technically proficient yet uninteresting works of art. Artist and art theorist Vassely Kandinsky would refer to such art as stillborn.

My experience and the experiences of others to whom I have talked over the years have indicated it is possible to progress through secondary and college level programs with very little learning taking place. The problem is we had become dependent on the education delivery system and forgot how to learn. Students have been conditioned to receive what is prescribed to them in the classroom, and they assume that filling that prescription is learning. Over time, they have forgotten the natural and spontaneous ways of learning experienced before their formal, compulsory education had begun. As Nietzsche pointed out over a century ago, formalized compulsory education is behavior modification where learning becomes the puppetry of stimulus and response, leaving students dependent on respondent thinking rather than self-initiated thinking born of their own natural learning curiosity.

An interesting article titled *Preschoolers Best College Kids*, by Robert Preidt, citing the research of developmental psychologist Alison Gopnik, indicated that preschool children solve operating problems

on illogically designed gadgets faster than college students. They speculate that the children's success may be because they are free from preconceptions and are less fixed in their ideas about cause and effect, making them more flexible at problem solving. Maybe what these children are showing us is that the best way to think outside of the box is not to go inside the box in the first place.

I have attended an art school and two universities for degrees and teacher certification, in addition to a couple of colleges for teaching recertification credits and, aside from an introduction to James Joyce and Victor Lowenfeld, the education I had purchased was of little value to becoming an artist or teacher. The learning that guides my thinking and production performances at present began after all formal educational institutions had deemed me educated and certified my intelligence by the bestowal of their certificate (degrees) of approval.

All formal educational institutions operate within structured standards designed to create an educated populous. The institutionally educated individual submits to meeting those standards with the promise of economic success in the form of careers for which the institution has been commissioned to educating and preparing its students. Certification and degree conferral indicates that an individual is properly prepared to meet the challenges of their domain discipline. Yet In the arts there are many degreed artists who fail to become productive, successful artists, and there are an equally large number of teachers that cannot produce art and perform poorly in the classroom. Standards are designed for uniformity, which means they operate with the pretext of equality, which implies that all who meet the standards will be equally successful. Standards are meaningless and doomed for failure because individuals are not equal and, in the arts, individuals have varying degrees of visual intelligence. Meeting standards and curriculum requirements does not indicate or predict performance within a discipline. One has to ask why an individual with certification and a degree from an accredited institution is not successful within their field of study. The goal of all institutions, as well as all entities, is to survive, which makes them self-serving, making them both beneficial and non-beneficial to those who are served by the institution. They are beneficial when competition requires changing and relevant curricula to better prepare students for future success within a discipline of study. They are non-beneficial when they exchange tuition for degrees for students without the necessary genetic predisposition to be successful within the domain discipline being studied. In this situation, the students meet the subjectively applied standards so that the institution benefits by enrollment and tuition and the students become certified educated but lack the skill and ability to succeed in their chosen domain discipline.

Self-Interest Learning as Professional Development

An artist who is self-taught is taught by a very ignorant person indeed. *John Constable*

I may also suggest that one who blindly accepts the education one receives may be equally "a very ignorant person" as well. In diagnosing my own education, I would have to say my failure was not because I lacked intelligence, but because I was being stupid. I expected to be educated by being passive, and I accepted the educational model, even when it did not fit my cognitive profile. Aristotle's definition of learning is cooperative thinking between student and instructor, and for learning to take place, neither learner nor instructor can be passive or disengaged; I was both. How can one individual know what another individual needs to learn and know without the Aristotelian cooperative interaction? I think the very high performing students intuitively understand the importance of being

active in their own education and do not leave their education solely to the care or custody of other individuals.

Education begins not by listening but by reading. The vast majority of teachers are just ordinary people with ordinary ideas who express secondhand knowledge of the more intellectually accomplished individuals of achievement. The importance of reading is that you go directly to the source of the idea expression and your instructor is now a genius rather than an ordinary teacher. Knowledge is experienced firsthand when learners read and interpret the source material for themselves rather than risk learning from an instructor who may very well be, as Constable points out, a self-taught artist.

The pursuit of source knowledge begins the process of searching, which is the essence of learning. The distinction from compulsory education is that self-interest is guiding the searching and learning process. Nietzsche suggests that being interested is a stronger and more lasting motivation in men and women than love or hate. Learning, motivated by self-interest, becomes a non-directed and nonlinear progression where one source leads to another in an endless procession. This method of learning is the same as the creative process and art production, which becomes intuitive and undirected, and seems to flow naturally from some unknown source. Film director Federico Fellini describes this flow: "I don't see myself as having willfully steered my life in one direction rather than another. Things happened in a very natural manner, and I went along with them, I lived them, made do with them, very naturally as if everything had been predetermined."

Vassily Kandinsky's book *Concerning the Spiritual in Art* and *The Complete Writings of Kandinsky* was the beginning of my education. Kandinsky provided a spiritual center and ideology for the self-sustaining quest for learning that was lacking in the Just Do It style of institutional learning. My concept of art as spiritual center was finalized through the reading of the exhibition catalog and essays of *The Spiritual in Art, Abstract Painting 1890-1985*. The catalog fused concepts of spirituality and philosophy with pictorial symbolic imagery clarifying art as idea and not a decorative object to be admired for its technical achievements. *Concerning the Spiritual in Art* and *The Spiritual in Art, Abstract Painting 1890-1985* clarified that the knowledge of materials and techniques of visual art is only half the equation of becoming an artist. My course of study began by reading the theories and manifestoes of renowned artists, providing a spiritual and intellectual base for production, while also reading in-depth manuals on historical and traditional materials, techniques, and methods of art production. Crucial to learning the historical methods and techniques of the past was having the ability to go to the Metropolitan Museum of Art on a weekly basis over a thirteen-year period. The combination of technique manuals and museum visits to visually identify and experience the production techniques used in works of art surpassed any studio art class learning experience. The ability to go into the museums on a regular basis became the resource and the means for problem solving with any difficulties I might encounter in my own art production.

Another crucial step in my development was in learning the Golden Mean or Golden Section and its application as a composition formula. A friend and colleague described the basis for how the Golden Section is used by artists, which I then applied to many reproductions of art to discover how successful artists had employed the compositional formula in their work. The best examples can be found in the works of Georges Seurat, Nicolas Poussan, and practically all academically trained artists from the nineteenth century back to the Renaissance. In Chapter Three, there is a brief description and example about how the Golden Section compositional formula is applied to the *Rape of the Sabine Women* by

Nicolas Poussan. Another source can be found in the book *Universal Patterns, Golden Relationship: Art, Math and Nature* by authors Rochelle Newman and Martha Boles.

Production skill alone is of little value and its application must be put to the practical use of visual thinking to have any relevance or significance at all to the visual art domain. Art without thought or meaning is what Kandinsky refers to as “wallpaper.” The next logical question is whether or not creativity and the creative process can be studied. This search began with how the brain functions and operates through the study of consciousness, which also provides much information on the sensory input from the eyes. If one is going to be a visual artist I think one must learn how the eyes and brain function together to create the most essential element of visual art - vision. Knowing how one sees provides informed visual thinking to visual production choices. The study of consciousness led to many other sources, such as Koestler’s work on the creative process, Storr’s psychological profile of creative individuals, and Jameson’s book on manic depressive artists’ temperament.

Learning becomes a chain reaction or a natural organic process with one source growing out of another. Learning is an open process, rather than the closed process of compulsory education. This open process in learning, thinking, and creating falls into the quantum physics descriptive category of the unifying theory of everything, which is described in the book *The Field*. A short summation of the zero-point field theory is that everything in the universe is interconnected and accessible by the mind. Some quantum theorists postulate that the mind is a receiver capable of tapping into the “field” of energy that is prevalent throughout the universe; human beings are also comprised of the same energy. When the mind is open and receptive, the resources available in the field will flow to the receptive mind. Robert Moog, inventor of the musical instrument the Moog synthesizer, exemplifies this theory by stating, “I opened my mind up and the ideas came to me.” Moog felt that his invention was a combination of both discovery and witness. Mozart stated that he only wrote what he had heard in his head. That is an enormous amount of great music coming from within one mind. In the absence of not knowing what or where consciousness is, zero-point field theory makes as much sense as any other hypothesis.

Federico Fellini describes a creative process that conforms and is compatible to the theories proposed by the quantum theorists described in the book *The Field*. Fellini describes the process as follows: “Who did that, from the moment I begin to work, when I become a film maker, someone takes over, a mysterious invader, an invader that I don’t know, takes over the whole show. He directs everything for me. But it is someone else, not me, with whom I co-exist, but who I don’t know.” This is also very similar to the documented cases of young children assuming the knowledge and identities of individuals of a previous time and generation. They postulate that this happens in children because their mind is not fully developed with a self-identity and their mind is a receiver that is more open to the field where a past identity can transmit into the receiver child in the present moment.

These theories being proposed, tested, and researched by scientists sound much like science fiction and still need to be thoroughly proven before being accepted by the mainstream scientific community. Since so little is known about human consciousness and the brain, the hypotheses proposed by quantum theorists are among the many possibilities waiting to be proven by a technology that does not yet exist. However, most artists operate in an intuitive mode and many would agree with the concept of the zero-point field theories proposed by the quantum theorists. My example is that when I needed to learn what I needed to learn, it materialized at the time I needed and was ready for it. This process came from one source book to another, a colleague making a recommendation at the right moment and

mysterious chance encounters that led to a new source. This path of learning seemed undirected yet predetermined, and always produced what I needed at the moment I needed it.

Knowledge is useless, unless it can be communicated or manifested in one's work. Knowledge must then be for a self-interested productive purpose, otherwise knowledge consists, as Nietzsche proclaimed, of "indigestible knowledge stones" that serve no real purpose, as does most, but not all of compulsory education. The purpose of my self-directed education was to improve productive thinking for the production of visual art and to improve my own learning ability, which would also benefit my students. I needed a language that I could use to communicate both to myself and to my students. For logical thinking I turned to philosophers such as Schopenhauer, Aristotle, and Heidegger, with a primary focus on Nietzsche. My educational language and vocabulary is adopted and adapted from cognitive scientist and education theorist Howard Gardner and art theorist Rudolf Arnheim.

To manage and productively harness my bi-polar disorder, I turned to the work of psychiatrist Kay Redfield Jameson and studied the behavioral and production characteristics of other highly successful bi-polar artists in her book *Touched by Fire*. What I began to understand from my directed inquiry into the bi-polar mind, through both Jameson's informative works and through reading the works of manic-depressive writers such as Arthur Koestler, Thomas Wolfe and Virginia Woolf, is that the bi-polar disorder creates only one type of mind with very eerie, peculiar similarities. While reading Woolf and Koestler, I would notice how similar they were in their thinking and how I would constantly come across thoughts that echoed my own thoughts, or repetitive rhythmic sounds forming self-directed negative refrains. I have done far more reading of Woolf's work and also find her sense of time or sensitivity to time very much aligned with mine. What proved to be the most fruitful course of study for the manic depressive illness was from clinical psychologist Thomas C. Caramagno's book, co-authored with Jameson, *Flight of the Mind, Virginia Woolf's Art and Manic-Depressive Illness*. It provided insights on how to control the illness and maximize the productive benefits of the illness. Once I was no longer controlled or in conflict with the illness, both productivity and productive thinking improved, creating a sustained flow of work, without the usual destructive regressions caused by the illness. The control and productive usage of the illness comes directly from the knowledge and understanding of the illness. It is a part of understanding how one's mind works so it can best be utilized in productive thinking and work production. If the person is not in control of the illness then the illness is in control of the person.

In athletics, there are two types of runners: the sprinter and the distance runner. Sprinters possess a majority of type-2 muscle fibers, which allow them to run extremely fast for short distances. Distance runners possess a majority of type-1 muscle fibers and a genetic predisposition to a higher baseline aerobic capacity. A marathon runner in the 100-meter race is a loser, just as the 100-meter sprinter is a loser in a marathon, because they are each required to compete under conditions for which they aren't genetically suited. Training programs could be established and have the best coaches, with program standards and objectives that could be quantified and measured, but the outcome unchanged, in that both would perform poorly.

Now apply this analogy to learning: I am a slow, methodical learner, and I think and process information as a visual artist. When a learning institution demands I quickly read content information and perform a speed recital examination, I am at a disadvantage and perform poorly according to their set standards. I am not given the time to run the full learning distance needed to reflect my intelligence and how I think. Learning as an artist means I process information by comparative analysis. Typically, an artist attends a

retrospective showing of a prominent artist's work and learns from a large collective presentation of artworks, rather than a single example of an artist's work. Comprehensive understanding and learning from an artist occurs best in a collective representation, which reveals the maturation and productive thinking progression of the artist. Learning is not dependent upon a single source, which is always incomplete, misleading, and errant in judgments and conclusions.

I study the cognitive sciences, psychology, and philosophy, as well as musicians and literary artists, all in the same manner I study visual art and artists. My understanding of consciousness is from the comparison of *Consciousness Explained*, *Consciousness a User's Guide*, and the explanation of consciousness in *The Field*. For composers of interest, such as Glass, Bach, Beethoven, Mozart, and many others, I have an extensive collection of work. When I want to learn about the creative process of artists such as Miles Davis, I will begin with watching as many documentaries that are available and then purchase the entire collection of their work and listen to them in the chronology of their production. The same is true for literary artists. I will begin with the best biography I can find and then proceed to read a collection of their books in the order they were published to understand how the artist's productive thinking skills mature and develop over time. Virginia Woolf and Friedrich Nietzsche are my most extensively studied writers and it was fascinating to see Nietzsche's early formed ideas transformed into mature concepts and Woolf's traditional narrative dialogue change to her strangely natural disembodied narration.

This is how I go about learning. I am a tortoise; I am the person on the electric riding lawnmower in the Daytona 500 who will come in last on the speed test while coming in first in the ecologically friendly carbon emission standards test. Koestler's conferring point of view is "the difference between those who climbed a mountain on foot and those who went up by motorcar... the view is the same, but their vision is different." I cannot be genetically altered or engineered to meet someone else's expectations of what or who I should be. My position must be if you want a rabbit try pulling one out of your hat and leave me alone with my own learning devices and style.

I was fortunate to pass through the educational system when teaching certification one was issued permanently, for life. I strongly believe that learning is a lifelong activity, especially since some, if not many, institutions do such a poor job of educating and preparing artists to become both competent artists and teachers. I was horrified to learn that certification requirements for artists now include language arts proficiency exams. Similarly, I was required to take a language arts exam when applying for a New York State teaching certification in the fine arts. After studying the incomprehensible language notation system and doping up to be able to stay awake and alert for the speed recital flaming hoop I was required to jump through, I passed and was given a temporary certification. There were, however, more hoops I would be required to jump through. The New York State Board of Education was testing my language arts competency and not my knowledge and ability to teach visual art. It is my opinion that the Board of Education's testing policy towards artists indicates a bias favoring linguistic over visual intelligence. It is quite possible that the "standards" roadblock they put in place for art certification may keep many competent artists out of the teaching profession, leaving art positions to be filled by English teachers who have limited abilities in visual arts because they were capable of surfing the system but were not born to be artists. I also applied for New Jersey certification at the same time, and easily passed their old style NTE test, which is a test created specifically for arts education certification. The multiple-choice bubble-filling exam was an art content knowledge test and was easy

to pass, and I imagined equally easy for those who lacked artistic skills necessary to teach in the arts. But at least it was an exam that was testing for the correct cognitive profile.

Teaching certification for the visual arts is issued for kindergarten through grade 12. It is hard to imagine one having the skills and mind set to work with and across such a diverse range of developmental stages and visual intelligences. I have met a few art instructors who do possess that ability, largely because they have the technical skills to teach high school and understand and enjoy working with students within the range of the elementary developmental stages. However, there are many more good elementary art teachers that would not be able to meet the technical needs of high school art students effectively.

As Gardner had stated in his essay, *Art Education and Human Development*, what is most needed at the elementary level is a place, a time, and materials and encouragement for children to be productive in their art. However, art instruction at the elementary level does require more than just a classroom teacher handing out reproduced worksheets to be colored, or stereotypical craft activities. What is needed for creative growth in students is a good elementary art teacher with well thought-out and age-appropriate, planned, lessons and activities that both encourage and maximize creative responses from enthusiastically charged students. Teachers at the elementary level of instruction need less technical skill and more stage-development knowledge, along with a child's capacity for thinking to create experiential learning activities that stimulate the imagination of a child at each appropriate developmental stage. The elementary specialist should not be expected or encouraged to teach secondary art when they are lacking the necessary visual intelligence and technical skill level. The elementary art instructor may possess spatial intelligence, but more than likely they would need the interpersonal intelligence. It takes an enormous amount of interpersonal skill to manage a class of active children at the elementary level.

I have the skill set necessary to teach at the high school and college level of art education, but would be a poor choice for and would lack the ability to teach at the elementary and junior high level. Since leaving college, my professional development has centered on academic and production skill development designed for the secondary and post-secondary levels of art education, even though in some states I am still certified to teach elementary art. I do love the imaginative and creative qualities of children's art that hasn't been contaminated by stereotypical adult imagery. Lately, I have also been working collaboratively with two pre-school aged children because I had forgotten the simplicity and directness of children's imaginative thinking. I have known a few elementary art teachers who simply loved their work and understood that they were elementary art specialists, just as I am a secondary art specialist, and neither of us could do the other's job. There are set course requirements for certification, but I think the defining and deciding factor for certification should be based upon artist temperament and skill level, or interpersonal versus spatial intelligence.

The word artist has a subjective meaning, and technically anyone can profess to be an artist, which cannot be argued. The words good and bad are also subjective, and cannot be universally applied to art or artist. However, once the artist crosses over to teacher, subjectivism ends. Teaching requires skills and knowledge and the ability to communicate those skills and knowledge to others. One trained solely in abstraction would lack the skills necessary to teach academic techniques, while a figurative artist with limited appreciation for abstraction would be lacking in the knowledge of the elements of art necessary to instruct outside the limitations of figurative art. The question for certification is how to test and

confirm the knowledge and skills necessary to teach at the secondary level of art education that would insure quality instruction capable of meeting the learning needs and interests of students.

I cannot propose but rather can offer an example of what I have done to meet the challenges of both my learning needs and those of my students since leaving educational institutions. I turned to the archaic ideas of the old style guilds and academies when a student first had to demonstrate proficiency and knowledge of form in drawing technique before being allowed to progress in their apprenticeship. What was true then is true now. The lack of understanding of form is easily and clearly noticeable in a drawing, and without the knowledge of form, one cannot perform properly in any of the more complex media. The key to understanding form is in the understanding of the planes that exist on all three dimensional objects. Examples of how to draw by understanding the planes can be found in *Lessons in Classical Drawing: Essential Techniques from Inside the Atelier*, by Juliette Aristides, and *The Practice and Science of Drawing*, by Harold Speed.

I also determined that style was a non-issue, and its only consideration is determined by the expression and production needs of a work of art. When “style” is removed and not included as a part of learning, then the elements of art are all that remain to be studied. The understanding of form is the foremost important element in figurative work. Even in abstraction or extraction, the understanding of form is essential to understanding what can be intelligently subtracted to maintain a credible and complete sense of visual thought to the viewer.

Equal to form, color is the other primary element of art that must be studied and understood. My learning sources for understanding color come from Bauhaus instructors Josef Albers’s *Interaction of Color* and Johannes Itten’s *The Art of Color*. What is essential to understanding color is that it creates movement and space based upon its chroma, or color intensity, and cold/warm contrast. Colors higher in chroma advance, while colors of less intensity recede. Likewise, yellows visually advance while blues recede. Knowledge of warm/cold contrast allows the artist to modify a color’s chroma, or allow color temperature contrast to help create and define a color’s position in the illusion of space created within the two-dimensional picture plane.

Colors are relative, caused by the interaction with the colors around them. What changes a color’s appearance is color subtraction and light/dark subtraction. For example, if you surround an orange-colored square with red, the orange would appear to be more yellow-orange because the red is visually being subtracted by the proximity of the color red. If the same orange square was surrounded by white, the orange square would look darker because the light is being subtracted by the white surrounding it. If a small dot of orange were placed on a blue background, the orange would visually intensify in color to create a visual balance with its complementary (opposite) color blue. The mind (and eyes) always seeks a balance or harmony and will change the appearance of the dot of orange to balance the larger field of blue.

As stated, color is relative and so once its rules are understood they can be easily reversed, but the knowledge of color is required to effectively manipulate its potential to meet the desired and required needs of a work of art. The mastery of color is also far more challenging than the mastery of form, and takes years to a lifetime to fully understand its subtleties and uses. I find myself envious of such masters of colors like Raphael and Matisse, whose color usage never fails to astound the viewer’s eye.

As an artist, I discovered that nothing of value could be created without the knowledge of form and color, which is especially true for a painter. The visual arts are a broad and expanding discipline, and what is required is specialization. The choice I made was to focus on traditional academic drawing and painting techniques, which also would be the foundation for informed ventures into other types of media. My primary medium is oil painting; however, I am practiced in encaustic, egg tempera, watercolor, gouache, acrylic, and various drawing media. The media I have chosen are easily utilized for the knowledge transmission of the fundamental elements of art to the apprenticing student. The knowledge of form and color is the essential foundation for all art production processes, regardless if they are manual or technology-based production process.

Continuing Professional Development and Recertification

Teachers are required to maintain professionalism by performing prescribed professional development classes, lectures, and university certified recertification courses. I have participated in a number of these professional activities and have always found them lacking and intrusive to my own professional development. For example, some of my encounters with professional development sessions were with how to make prints from cabbage leaves and how to make art from tire retreads found on the roadside. One could argue that these activities might stimulate the student's imagination, but one could also question the learning value of knowledge gained in such activities. I have also found extended recertification courses to be lecture and activity-based, never providing sufficient resource ideas or materials that would be suitable or usable in my classroom instruction. What they sponsored was the make-it-take-it, pre-fabricated lesson with highly subjective objectives to be plugged into the curriculum lesson plan book. Professional development is little more than compulsory education where compliance is mandated by the certifying institution.

There is no distinction between my personal and professional development, and it is continuous. The mandatory requirements of the educational system interrupt, negate, and fail to recognize my more comprehensive studies of the creative process and skill development. Perhaps one day documented independent studies designed for professional development could be submitted for evaluation and recertification, rather than the pay for piecemeal curriculum of the mandating educational system.

I would suggest that a secondary art instructor be evaluated and certified by a performance review. The performance should be based on the competency of the artist's visual thinking and production skills through the submission of a portfolio. Visual thinking skills can be assessed by the degree of production skills exhibited in the visual work and the ability to articulate the thought production in the writing of image content/conception, structure, and production methods. This method of performance review would provide a clearer picture of professional developmental growth, rather than the current fragmented approach of content resources from different institutions that provide only verification of attendance without demonstrating any individual professional development.

Additionally, I would suggest that a secondary art instructor be evaluated by their students' performance. It is quite possible to intuitively produce competent art, but teaching requires communication skills and an art instructor must have the teaching skills and vocabulary to communicate effectively to apprenticing students under their instruction. If the instructor's portfolio is not of professional quality, and their students are not performing at a high school level of production, then the

instructor lacks the professional skills and knowledge to be in an art teaching position. Teaching is an active process requiring participation by both student and instructor. If an instructor has the necessary skills and knowledge to teach art, then the quality of their students' production will reflect the instructor's professional competency.

Summary of the Eternal Heretic

In the chapter's opening quote, Rubashov, the protagonist from Koester's novel *Darkness at Noon*, expresses the parallax vision of seeing and projecting into more than one point of view. Gardner, in his theory of multiple intelligences, recognizes multiple points of views of individuals with different modes of thinking and learning. Nature provides many examples of diversity at every level of existence. The philosopher Frederic Schelling proclaims the artist as being nature that has become self-aware. Unfortunately, the tutelary Gods of education have no artist-awareness or diversity-awareness. They are aware that education is a hierarchical system, and their cyclopean view determines how everyone must see. I am sure this one-eyed, single vision, self-serving institution believes itself to be benevolent; however, a benevolent Cyclops is still a monster capable of creating the parochial learning environment through the orthodoxies of standard education. The journey through the education system is beneficial for those who best fit the desired learning profile, and debilitating for those who do not and may, as a consequence, experience the curious blend of American altruism and eugenics in their education after life. It is not at all surprising that some who fail in the system and become marginalized and disenfranchised from mainstream society become misanthropic.

One of the goals of this chapter is an attempt to give the reader a view from the bottom of the education system looking up. There is nothing unique about the way I learn or my education experiences, caused by the manner in which I learn. I am just one of many variation of learners who used to hit the snowplow every winter and got pushed aside for the trafficking of mainstream education. Artist Chuck Close's educational difficulties were very similar to mine and I was pleased to hear him announce them publicly on NPR's Radio Lab. Close is a dyslexic and has prosopagnosia. In his interview he attested to his great difficulties in school, of not being capable of doing simple math and never taking any advanced math or science courses. If it were not for a nearby junior college that accepted everyone, he never would have had the opportunity to attend college. Close had also mentioned his friend and colleague Robert Rauschenberg as being dyslexic and bipolar, who equally had many obstacles to overcome in his education. However, there isn't a singular learning working model for artists and there are artists of great vision like Maya Lin who, having no academic learning difficulties, attended Yale and is having a distinguished career as an architect and sculptor. I also try to stress that learning difficulties and institutional barriers can be overcome by awareness and discipline and that ultimately, academic, artistic, and personal success or failure is a personal choice, meaning one either has or has not chosen to educate oneself.

Learning can be categorized into stage development and Lowenfeld and Gardner each offer their own models that are a blend of scholastic and natural learning development. Both theorists concern themselves with creative and artistic development and avoid concepts tying artistic development to scholastic learning standards that would undermine the necessary skill development to be a visual artist. Critical thinking skills not attained in secondary education can be acquired at the college level where there are more opportunities and better quality of instruction. The proposed recommended standards

for art are idealistic and don't take into account the varying development levels or instructional needs of individual students. Most students enter an art course to either develop their production thinking skills in preparation for postsecondary art programs or because they are looking for an oasis to escape from academic content learning. No one has ever entered into an art course looking to develop their critical thinking and writing skills. I agree it is necessary, especially along with art history knowledge, but acceptance into art programs are based on production skill, not writing skills, and there is insufficient studio instruction time to suitably prepare students for postsecondary art education.

In the opening paragraph Gardner describes the fundamental tenet of learning, which can and should be viewed as a process separate and external from the compulsory education system. Much of the artist's learning experiences are individually and internally driven and are found and experienced outside of scholastic institutions. The key to an artist's development lies in the capacity to recognize their own needs and interests and to find and pursue learning opportunities that will best advance their own self-interest and professional goals.

Artists by nature are synthesizers, and the synthesis for my preferred method of education comes from the bisociation of the definition of existentialism, with education creating what I see in my mind as the perfect method of education. An artist's education would be defined as an education for *an individual less interested in factual knowledge and the workings of the outer world, and preferring intuition to reason, symbols to concepts*, and self-realization through unfolding of individuality. The Individual artist must assume ultimate responsibility for acts of free will without any certain knowledge of what is right or wrong or good or bad. In Joseph Campbell's words, "follow your bliss," without fear.

Artists are a unique category of individuals who share many common traits not found in those who are not artists. For this reason I have offered my experiences as examples and have provided as many voices as I could to express the common ways in which artists think and experience their creative world.

I began this chapter with Rubashov and will end with his voice acquired through the experiences of his author Arthur Koestler: "Woe to the fool and the aesthete who only asks how and not why".