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Art Academy

The Art Academy is a four year course of academic study in the traditional techniques of drawing and painting. When I took over the responsibilities of teaching art at the Academy of Mount St. Ursula there wasn't any continuity or sustained program learning. An academic visual art learning program was a foreign, incomprehensible concept to both administrators and student body. It was difficult for anyone to imagine art being something other than a talent, or an experiential and recreational activity where students could go to seek relief from the massive homework assignments dispensed by the core academic classes.

If I was to remain in teaching I needed to construct a program that could circumnavigate the limitations of the sporadic experiential learning created by the scheduling constraints of a small school system. I needed to be able to work with students across all four years and would consider it optimal if Art Academy students took the Studio Art courses in addition to their Art Academy classes.

To achieve the objective of creating the Art Academy I needed to work outside of the school's schedule system. This meant scheduling class sessions before and after school with additionally scheduled off-site learning activities. To insure class time would be respected and adhered to by the students, the course needed to be sanctioned by the school and given the accreditation allotted to all other academic classes. Since the course operated outside of scheduled school hours, as well as in other learning institutions, parent knowledge and consent of student participation was necessary. Parents needed to be aware of course requirements and to understand that the inability or failure to meet the requirements meant the students would not be eligible to take the course. Both student and parents needed to understand the Art Academy wasn't a drop-in recreational class, but rather a four year disciplined course of study in traditional academic art.

Art Academy students are required to participate every school day during their assigned class time and are also required to draw a minimum of forty minutes outside of class each day. Student progress in any of the art disciplines is dependent upon structured and disciplined practice. The more time students can dedicate to their structured learning assignments the quicker they will be able to develop the skill and knowledge necessary to becoming an accomplished artist. Without constant practice, no skill development is possible, regardless of the quality of instruction received. Without practice, both the student and teacher waste instructional time and yield little production and learning.

I suggest to my students that they try to put in an hour each day after school practicing on their assigned lessons. My most serious students put in twelve to twenty hours of practiced drawing and painting per week, and it shows in both the volume and quality of their work. Sixty percent of the Art Academy student's grade is based on the amount of practice time spent outside of class. If a student continually lacks in practice time or fails to demonstrate proficiency in production technique, that student is dropped from the course for not meeting the course requirements.

During the time I was a contractual teacher at the Metropolitan Museum of Art, the Art Academy students were required to enroll and participate in the classes I was instructing. This gave me an expanded opportunity to work with my students outside the limitations of a school classroom. For each class the students attended they were give free admission into the museum, exposed to some of the

greatest artworks by our culture's best artists and art from other cultures, and given the opportunity to see and discuss actual works of art that formed the basis of their museum-based art lesson and project. The Academy students also got the opportunity to meet other art students from different schools and compare their own developmental levels and skills with that of other artists.

The Academy students were required to attend an after-school program at the Metropolitan Museum of Art. The program met for six Fridays each semester in the school year to have open discussions on selected works of art. The class was orchestrated by Ms. Rika Burnham, who authored the book *Teaching in the Museum*. I say orchestrated because Ms. Burnham functions more as a moderator in sustaining student-generated constructivist dialogues about selected works of art. She facilitates the students' abilities to interpret a work of art through constructing a meaningful dialogue and relationship with a work of art and members of the group. Through this program, students gain historical knowledge in art, as well as a model of thought for developing critical thinking skills to help them assess the narrative structure and aesthetic qualities of an artwork.

In addition to attending after-school, off-campus learning programs at the Metropolitan Museum of Art and the Frick Museum, students were also required to attend an after school film series. The focus of the film series combines art history, including contemporary working artists, and the creative processes of artists working in various art disciplines. Art historians and today's documentarians provide an invaluable point of view of art in culture that enables students to understand art within a cultural, social, and historical context.

To learn and understand art requires more than just a studio experience. Studio experience without historical and cultural reference is blind, uninformed, and unproductive learning. Skill can be learned, but learned skill in an uninformed mind is limited if not useless. Creation always requires informed intelligence that is productively constructed from a comprehensive disciplined study, starting with the visual arts domain and eventually integrating the study of all art forms and disciplines.

Thomas Wolfe, in his book *Of Time and The River: A Legend of Man's Hunger in His Youth*, makes clear the separation between the artist and the aesthete: The artist has a burning curiosity or an insatiable hunger for learning all that can be learned of a discipline for the purpose of creating, contributing, and advancing a discipline domain and becoming an active contributor to culture and society. Students with a passive interest in art are not artists; what they are really looking for is a project or activity-based course, not the disciplined course of study necessary for an artist.

The passion necessary for becoming an artist is what the writer Thomas Wolfe refers to as an insatiable hunger for learning. Akin to this is the philosopher Nietzsche's requirement of envy of the great works of others to produce the creative drive necessary to be successful within a discipline domain. Wolfe and Nietzsche's motivating insights are interdependent, and both are necessary components of and accessories to the visual intelligence of the artist that drives learning and success within the discipline domain of the visual arts. Rarely do I encounter students propelled by these traits and it is equally rare that I see students become successful artists.

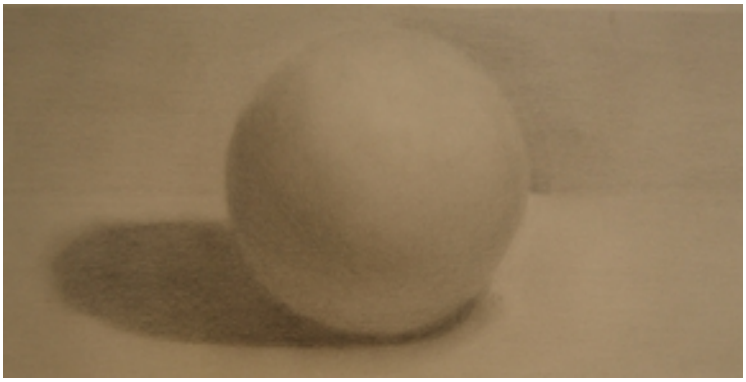
When students are accepted into the Art Academy program, I promise them that what they learn is just a beginning, a scratch on the surface of what art is and what it will take to become an artist. I offer a foundation of learning for the students to build upon. How meaningful that foundation will be is dependent on their individual hunger for knowledge.

In the Art Academy program, I teach the students to draw and paint without stylization, so as not to interfere with their learning of form and structure. As the students develop their skills, what is individually unique within them will intuitively and knowledgably assert itself into their style of artwork.

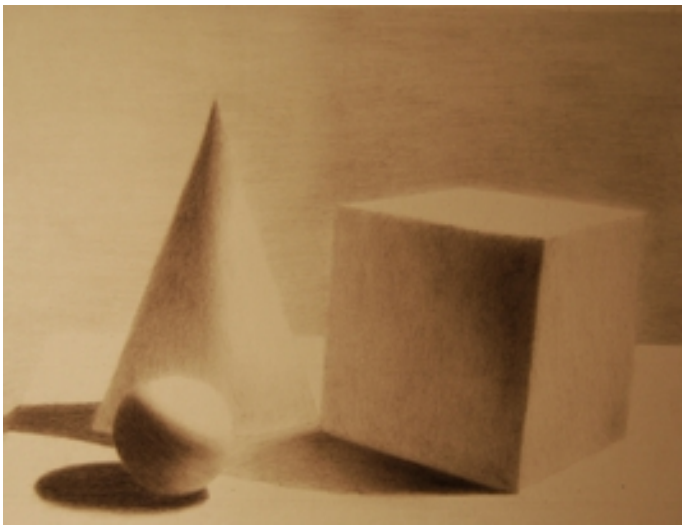
Art Academy 1

Once students are fully informed of the commitment and course requirements, the process of enrolling students begins. The enrollment is a selective process to find qualifying students with a high visual intelligence. As stated before, there are students with high interest in art but low visual intelligence, just as there are students with high visual intelligence with no interest in art. Generally I have the students submit a portfolio of their work to demonstrate their interest of visual art, but due to previous inadequate instruction, often the portfolio is a poor indicator of the student's potential to successfully meet the academic challenges of the Art Academy course.

Students are accepted into the course if they can skillfully complete the entrance drawing of a sphere that must match the skill of the drawing below completed by an Art Academy 1 student. The students are introduced to the techniques of pencil drawing through the use of the 5pencilmethod.com drawing instructional DVD. The students are provided a photocopy of a sphere with a single light source and instructed to use the drawing techniques learned from the instructional DVD.



Those students who have the ability to apply the learned drawing techniques and successfully complete their entrance drawing are accepted into the program. The students who don't have the patience or the visual intelligence to correctly see the form of the sphere and implement the necessary drawing techniques are recommended to take the Studio Art classes when the courses are available to them. The inability to draw a single, simple form would indicate that the academic course of study would be too difficult for them and would require too much instructional time that would be better employed instructing students of higher visual intelligence. In the Art Academy the student-teacher relationship is an apprenticeship relationship, where more direct individual instruction is given. If unqualified students are allowed to participate in the program, less time is afforded to the higher skilled, better qualified students, which diminishes their learning opportunities. The less qualified students will get class and apprenticeship instruction in the Studio Art program that is more suited for their attentiveness and skill level.



Once a student has successfully passes the entrance drawing, they are assigned to draw a geometrical still life. The still life introduces the students to a measuring system using a sighting stick, as discussed in Chapter 6 in the Basic Art program. In drawing the geometric still life, the students learn to draw the basic forms that comprise all other complex forms they will encounter in their drawings. The drawing on the left is an example of a geometric still life assignment.

After the completion of the geometric still life drawing, students are assigned to draw a still life of objects with more complex form. In addition to using the sighting stick for measurements, the students use another complex system of measurements that is synthesized from Juliette Aristides' classical drawing book and the methods used in the 5pencilethod.com DVDs.

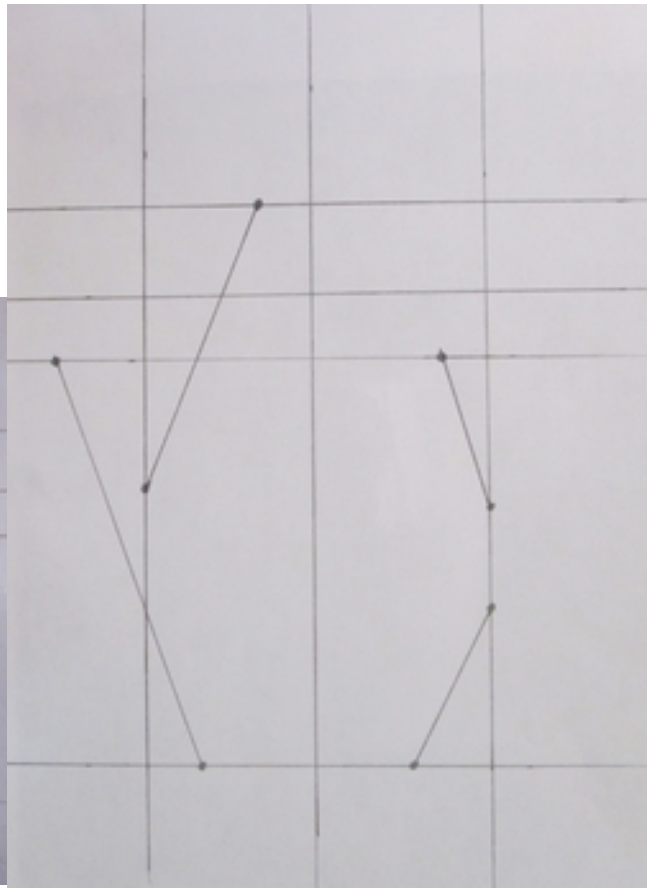
Unfortunately, in my classroom it is impossible to set up a still life and not have to move it several times each day due to varying class sizes and functions, so I photograph the still life, having the students work from a photograph as well as with the still life objects individually. This is a good starting solution for beginning students because the camera translates three-dimensional objects into a two-dimensional format.

An example of the measuring system taught to the Art Academy students begins by setting the scale. In the example on the left, the student's drawing will be one and a half times or 150% larger than the photographed image. The first step is to draw vertical lines on the left and right sides at the widest point of the body of the pitcher, disregarding the spout and handle. In the next step, students must measure the center point between the right and left sides of the pitcher and draw the center vertical line. Then they draw horizontal lines at the base and top of the pitcher, again disregarding the spout and handle.

The first line drawn on the drawing paper is the vertical center line for the pitcher. The inset drawing on the right illustrates the measured 3 vertical and two horizontal lines.

Two additional horizontal lines have been measured and drawn: one at the top of the spout and the other at the top of the inside lip of the body of the pitcher.

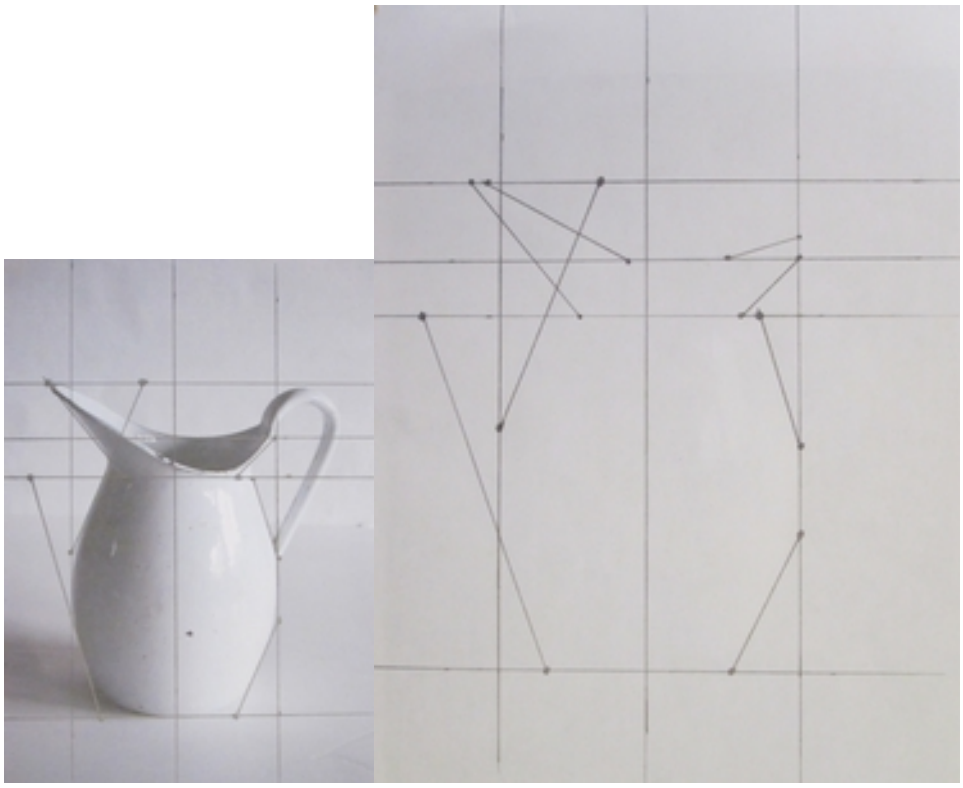
All measurements must be made on the vertical and horizontal lines. For example, to draw and measure the undercut, or downward facing plane of the right side of the pitcher, the student first places the ruler on the picture of the pitcher and draws a diagonal line that best follows the curve of the pitcher. The diagonal line must extend and stop on a horizontal or vertical line. I have drawn dots to indicate the starting and stopping point of each line. On the horizontal base line of the pitcher, students measure from the vertical center line right to the dot where the diagonal line of the undercut of the pitcher intersects the base line. Multiply that measurement times the scale which is 1.5 for the 150% enlargement.

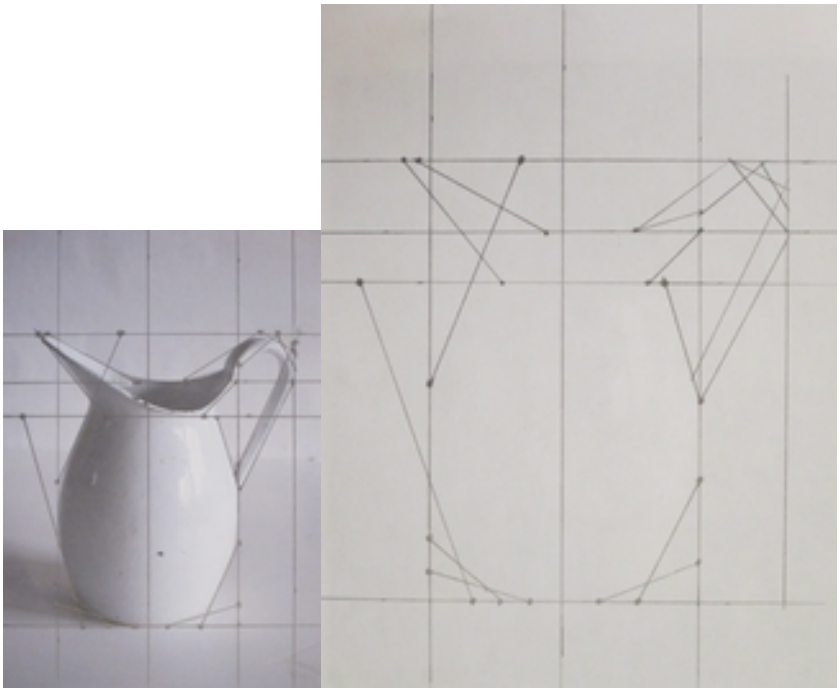


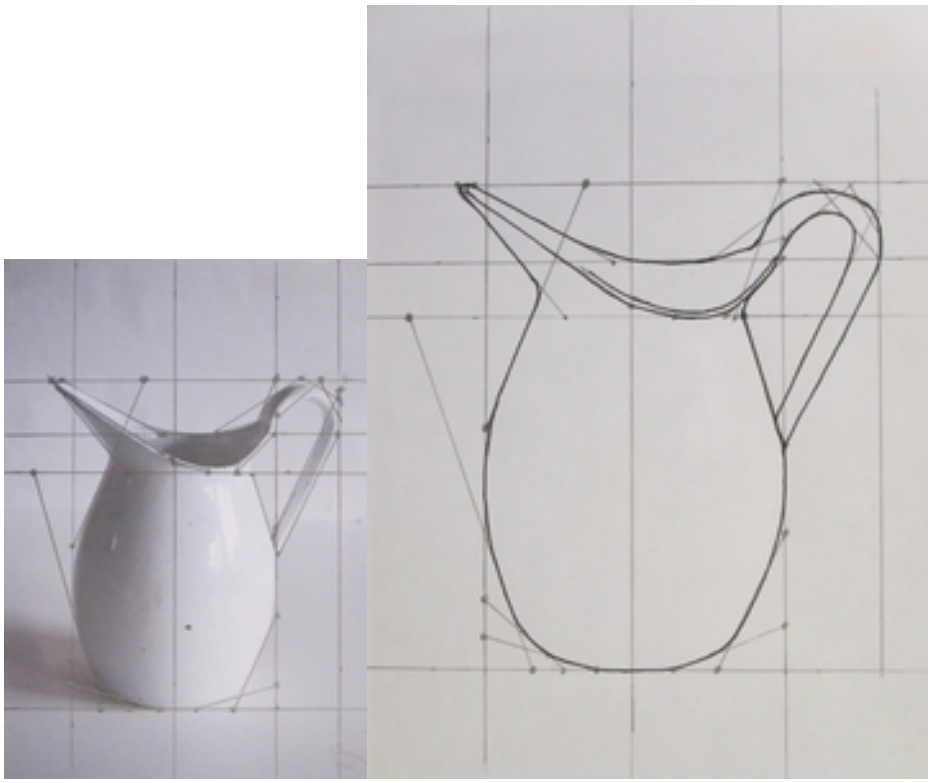
The answer is the measurement that must be applied to the enlarged scale drawing, measuring to the right from the intersection of the vertical center line and base line. At the correct measured point, a dot is drawn. Students return to the photo of the pitcher and measure up from the intersection of the base line and the right vertical line drawn on the right side of the pitcher, then multiply that measurement times the scale of 1.5. The answer is the measurement that must be applied to the enlarged scale drawing. Students then measure up from the intersection of the base line and the right vertical line and place a dot at the correct measured point and connect the two dots, making the diagonal line of the undercut of the right side of the pitcher. They continue the process of making measurements on the photograph, ensuring all lines begin and end on

either a vertical or horizontal line to ultimately ensure correct measurements and draw the corresponding measurements on the larger scale drawing.

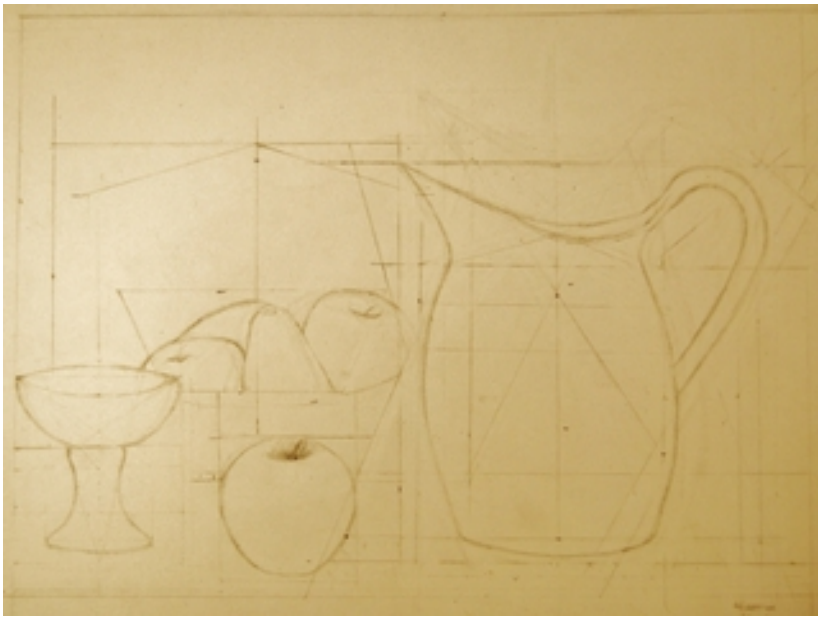
Below are the step by step measurements in drawing the pitcher.







The accurately measured outline of the pitcher is complete and the students will use this measurement system to measure, plot, and draw all of the objects in their still life. It is a tedious process, but if beginning students do not initially adopt this process their measurements will always be inaccurate and the drawn objects of their still life will seldom be symmetrical. Drawing is measuring, and if students don't measure, that means I will have to do the measuring and corrections for them and they will learn and gain nothing from their own efforts in drawing. Students are made aware that if they can't measure accurately they are unable to draw and will be dismissed from the Art Academy program.



The still life drawing with the pitcher on the left uses the measurement system illustrated above. The students would also use the apple in the foreground as a unit of measurement to check the accuracy and placement of objects in their drawing. For example, they would have to determine the height and width of the pitcher by using a sighting stick and the image of the apple as a unit of measurement. The pitcher is three apples in height, and one and three-fourths apples wide.

With practice, as the students progress in skill and develop a higher standard for accuracy in their drawing, they will eventually use the system of measurement of selecting an object or a part of an object to set the scale for measuring. The measurement lines demonstrated in the drawing above and in the example of drawing the pitcher should eventually be accomplished with a sighting stick held at arm's length with one eye open to visually record the angles by sight from the object being drawn and apply the sighted angles directly onto the drawing. The example of this drawing method can be seen on Juliette Aristides' DVD from her book *Lessons in Classical Drawing*.

Above left is the finished drawing.

Pictured on the left I have indicated the upward and downward facing planes on the pitcher and apple. The red lines indicate downward and the green upward facing planes. Students need to view all objects as directional planes. Knowledge of the planes is critical in rendering form. For example, on the left shaded side of the pitcher the shadow should not be the same value the entire length of the left shaded side of the pitcher. Those areas marked as red undercuts and downward facing planes will be darker than the green-marked upward facing planes. Upward planes always receive more light than downward planes, even on the shaded side of objects. Sometimes clarity of form can be lost by not understanding this simple rule for shading the planes. What often causes confusion in form is reflected light. Light travels in a straight line and when it hits a light or reflective surface the light reflects off the object changing the light's direction, dependent upon the angle of the light and the object's surface. In the picture above, the light is traveling diagonally downward from a light source that is above and to the right of the picture plane. The light strikes the surface of the table and reflects up illuminating the undercut curve of the apple in the foreground, causing the downward facing plane of the apple to appear lighter than the shadow on the upward facing plane on the left-shaded side of the apple.

Often in drawing it is better to disregard reflected light for the sake of developing a more sculptural visual appearance of form by constructing and shading objects from the knowledge and use of the planes. In the drawing above, the downward facing planes of the body and spout of the pitcher could have been a little darker. The foreground apple on the left-shaded side is too dark on the upward facing plane and too light on the downward facing plane.

The understanding and use of the planes in drawing and form construction becomes an important concept the students must realize to be able to draw. The use of the planes represents the knowledge or visual thinking in drawing which is often required to override the sensory input of direct observation (seeing) to establish a visually believable and congruent drawing.

The student's drawing on the left was methodically produced by very precise measurements and the student was able to accurately draw the complex shape of the creamer without any assistance.

Pictured on the left is the finished pencil drawing. The still life objects are highly reflective, and reflected light can either clarify object form or cause distortions in form. The reflections of the room's windows on the creamer create a curved formation beginning at the top joint of the handle to the vessel's center. The curved reflections visually strengthen and emphasize the creamer's roundness and three dimensional form. The same strengthening of form also occurs with curved reflection of the windows on the inside surface of the cup. Because of the student's meticulous attentiveness to measurement and detail, she was able to add the reflected light, which normally would be too visually contradictive for beginning students to construct a sculptural form in their drawings. Normally I would have begining Art Academy students ignore reflected light and concentrate on building form through the system of upward and downward facing planes. The student did an excellent job of seeing, and the placement of the many light-reflected areas on the still life objects strengthened her drawing. Improvements to strengthen form still can be made by slightly darkening the downward facing plane of the body of the creamer on the left side, and by lightening the upward facing plane on the body of the creamer on the right side and left side. There is too high of a value contrast of the reflected light on the outside of the creamer's spout on the right side, causing a distortion in form. Overall, the drawing does effectively communicate the volume and form of each still life object.

Art Academy 1 students finish the school year and work into the summer on completing one more still life drawing. The students are to remain focused on correct measurements and disciplined pencil drawing technique to render form. Below is an example of a final Art Academy 1 drawing. In this drawing the student is applying a complete knowledge of the planes, which is most evident in both the

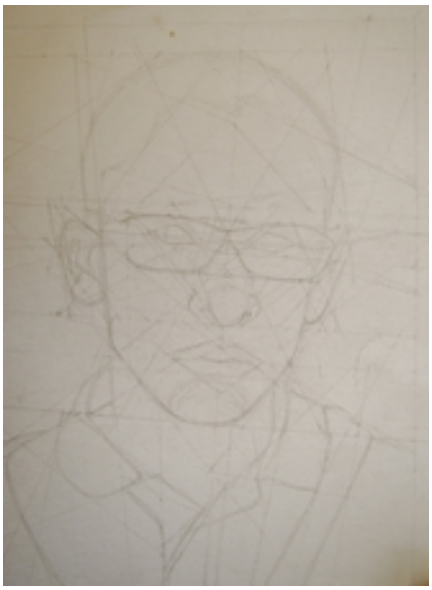
vase containing the apples and in the apples themselves. The downward facing planes on the shaded side of the vase are darker than the straight and upward facing planes. The same is true in the apples, where reflected light has been either minimized or omitted, producing a more sculptural three-dimensional appearance, with the downward facing planes being darker than the upward facing planes.

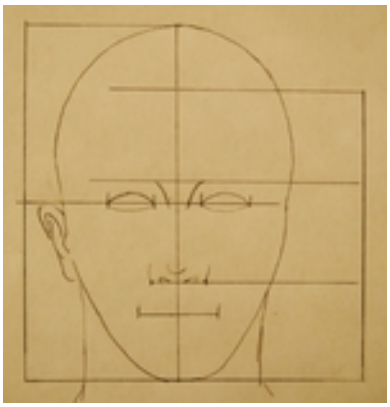
The background is toned with a dark value on the right, and transitions to a very light value on the left. This is a traditional technique used by many artists over the centuries. In this method of empty and ambiguous space, the rendering of the background on the side of the light source is dark and transitions to a light value on the opposite side of the light source. In the picture above, the light source is on the right of the picture. Optically, what must occur is a dark background butting up against the lighted side of the still life objects. The darkness of the background will visually push the lighted subject objects forward. The background must then transition rapidly and become lighter than the shaded side of the subject objects. The light background will optically push the darker shaded objects forward. The deployment of this background method creates a greater sense of visual space within the picture plane and enhances the optical illusion of the subject objects as being three-dimensional.

Because of the downward facing planes of the forearms on the African sculpture, the student also had to transition the background value from top to bottom on the right side. The student did an excellent job in her transitions. The background is light against the darker downward facing planes of the forearms, dark against the light side of the fruit and vase.

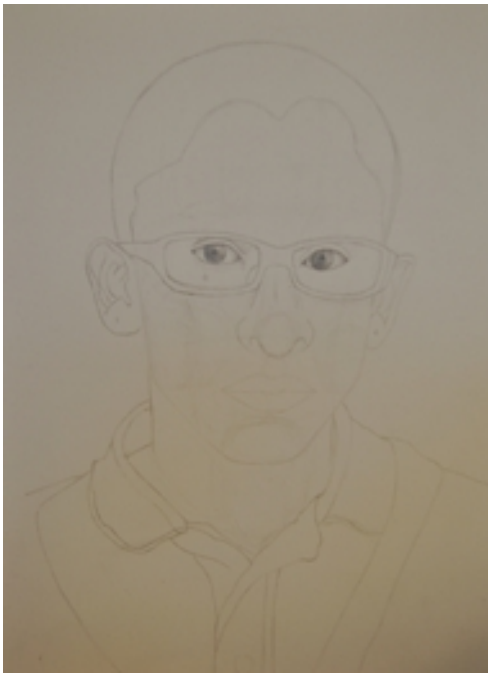
Art Academy 2

Portraiture is the subject and skill focus of Art Academy 2. To advance beyond Art Academy 1, students have to master the skills of pencil technique and measurement. The students then use those skills to render the far more complex form of the human face. In still life drawings, if the measurements are not quite correct, often the mistake is unnoticeable. However, when the measurements are incorrect on the human form it becomes unavoidably noticeable and the focus of the drawing is on what is incorrect in the drawing, not on what is correct. Mistakes are amplified and dominate the drawing as the viewer instinctively surveys it to determine why the human face looks so odd. In the drawing below the student employs the same system of measurements used in the construction of the pitcher demonstrated in this chapter. This system of measurement is also identical to the measurement system so adequately and meticulously demonstrated in the step by step *How to Draw a Portrait* DVD by Darrel Tank, which is available on his website 5 pencilmethod.com. The Limitation of Mr. Tank's method is that he copies from a photograph and does not include the standard measured proportions of the face.





Pictured on the top right is a drawing of the standard proportions of the face. The measured lines on the left indicate that the eyes are located exactly in the center of the face and the face is five eye-widths wide. There is one eye-width between the eyes. The measured lines on the right indicate that the face is divided into equal thirds from the chin to the bottom of the nose, the bottom of the nose to the eyebrows, and the eyebrows to the hairline on the forehead. Knowing these standard proportions gives the student the knowledge to double check her measurements while using other measurement systems.



It is a good idea to compare and contrast Tank's methods with Juliette Aristides' measuring and blocking techniques described in her book *Lessons in Classical Drawing*. Eventually an artist will have to translate objects from life into the two-dimensional drawing notation system of the artist, and the artist will have to rely on knowledge of standard proportions and planes, rather than the copying of photographs. However, this is the best method for beginning students to assure accuracy in measurement and visual likeness to the subject being drawn.

I have the students do the measurement drawing on a separate sheet of light-weight or bond drawing paper, and once proportional problems have been successfully resolved, the student will transfer their measurement drawings to 100 lb. vellum Bristol drawing paper. To transfer their drawings, the students must prepare a transfer paper by darkening one side of a light weight or thin paper with a soft graphite stick. After one side of the thin paper has been completely covered with graphite, it is ready to be used to transfer the measured drawing to the vellum Bristol paper. The transfer paper is placed graphite-side down on vellum Bristol paper and the measured drawing is placed on top of the transfer paper and secured with tape to the drawing board. I recommend that students use an ink pen to go over the contour lines of the face. The use of a pen makes it easier to discern what lines have and have not been transferred. It is also important not to press too hard with the ink pen in making the transfer. Too much pressure from the pen will indent and damage the surface of the paper, causing a flaw in the drawing that cannot be covered or fixed.

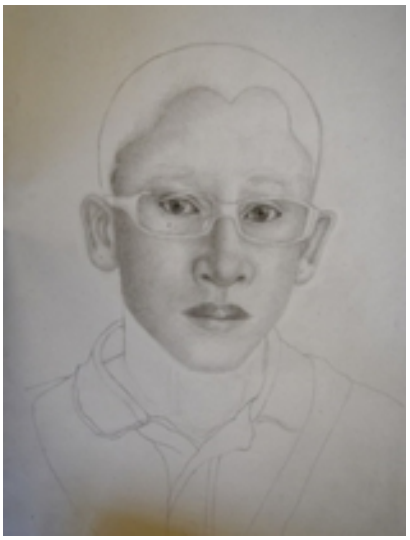
The drawing above on the bottom left is the transfered drawing on vellum Bristol with the modeled drawing of the eyes started. The transfer lines are very light compared to the rendering of the eyes.

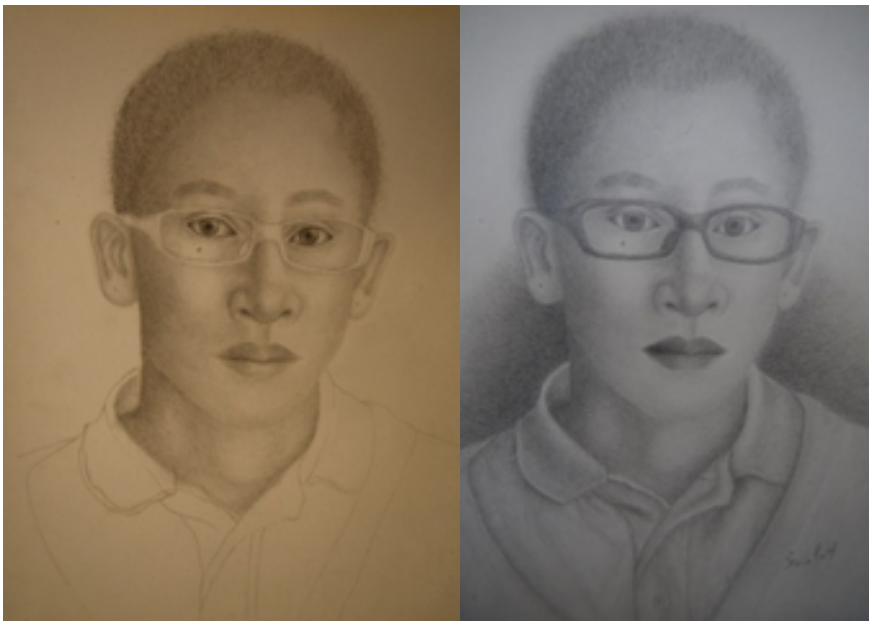
There are a couple of ways to begin the rendering of the form in portrait drawing. One method is to block in the planes of the face with an assigned value, a method illustrated by Aristides in her book and DVD. In Darrel Tank's 5 pencil method, he begins with the eyes. The eyes, the most important feature, are located in the center of the face, requiring refined motor skill in rendering them. I find it best to draw the eyes first so that the hand can comfortably rest on the drawing surface before tonal values are added to the drawing that would likely get smudged while drawing the fine detail of the eyes. Still, rather than having the students rest their hand directly on the drawing surface I have them either rest their hand on a cover sheet or drawing bridge to insure the drawing remains free of smudges or oils from their hands. Even though the students begin with the eyes on their drawing, they are cautioned not to get too dark of a value in their drawing. How dark the eyes must be will be determined by the light and dark values in the rest of the drawing.

In the drawing above pictured on the lower left it, it can be easily noticed that the eyes have been drawn in too darkly, especially at the corners and the inside of the lower eyelids. This dark rendering of the eyes will make assigning values for the planes of the face a difficult task, and the darkness in the lower eyelid impossible to lighten, putting too much emphasis on the eyes, or more correctly, drawing attention to what is wrong in the eyes.

Pictured below and center the student is starting to block-in the side planes of the face and nose. To assist the students in understanding the planes of the face, I use the plaster sculpture pictured below left that defines the basic planes of the face. In past years I would have students do drawings from the plane sculptures, but in recent years I have opted to have the sculpture on view when they are drawing their portrait and also to have them draw the planes on the printed photograph of their face. This method has produced better results because they can see directly how to translate the planes from the sculpture to the planes on the specific image of their face.

Below: The two drawings on the right and below are a couple of the many steps in the drawing of the student's self-portrait.

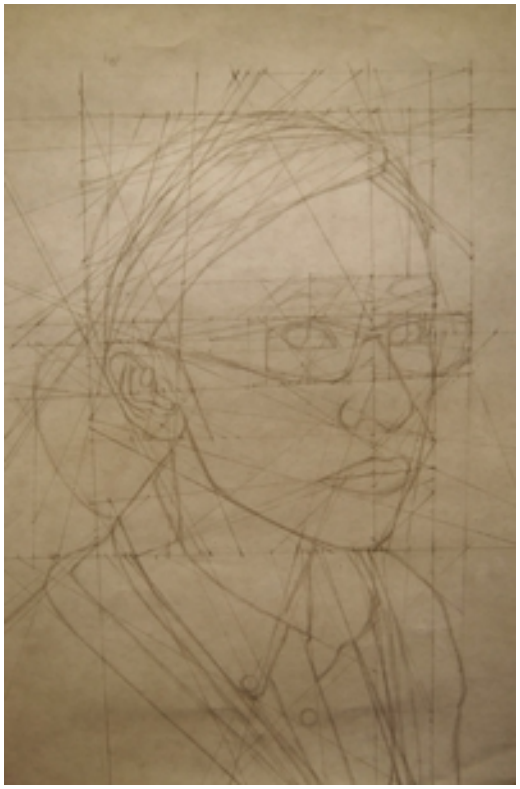



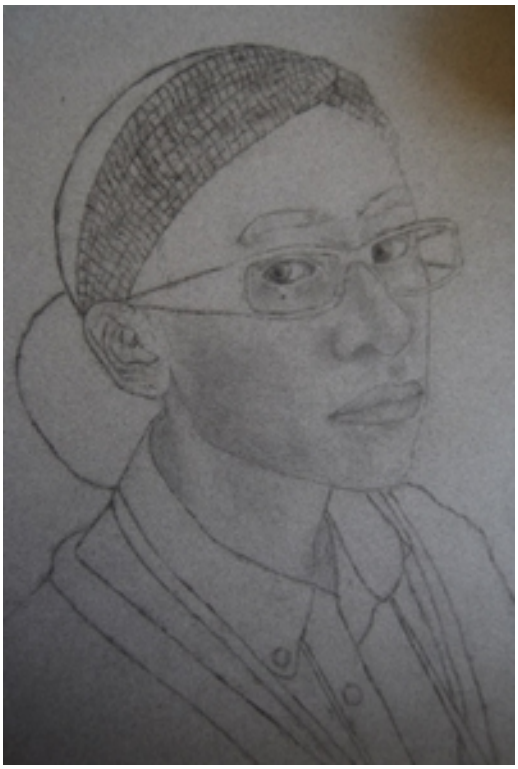
The two photographed drawings above are photographs of the same drawing. The warm and cold tonal changes in the photographed images are the result of photographing the drawing in the classroom on different days with different light conditions.

The drawing on the left clearly shows the eyes as being drawn too darkly, especially inside of the lower eyelid. Since the drawing is done in pencil, it would become very time consuming to darken the planes on the left side of the face and hair with the refined pencil technique that had been used in the drawing, and changing technique at the end of a drawing would be too noticeable and therefore not an option. What the student learned was not to make the eyes too dark at the beginning of the drawing.

Also on the picture on the left, the jaw line on the left side is noticeably lower than the jaw line on the right, which proved to be an easier adjustment to make than the eyes. In the finished drawing on the right, the dark value of the eyes have been reduced, the jaw line adjusted, and the background added. The background has added a dark value that pushes the lighter values of the figure's face and clothing forward, transitioning lighter, so a light value will push the darker value of the hair forward. The drawing on the right is the student's very first attempt at portrait drawing, at which she did an exceptional job. The planes of the face are clearly visible and her pencil technique is excellent.

In the next assignment the Art Academy 2 students draw a three-quarter view self-portrait with the objective to solidify the proportional and structural knowledge they gained from their front-view portrait. A different view of the features of the face will clarify how much structural knowledge of the facial forms the students have. The three-quarter view will create great difficulties for the students if they do not understand the eye is a sphere, the mouth wraps around a cylinder, and the distinctive front and side of the nose and face are planes.



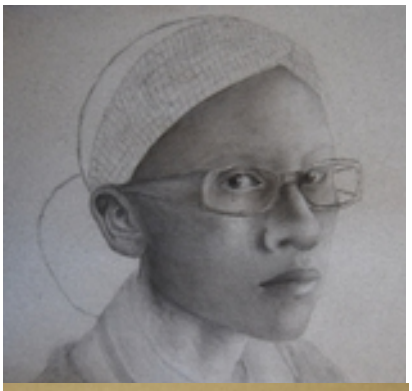


At this point in the students' development, the pencil becomes a familiar security blanket they do not wish to let go of. They must be pushed into the unfamiliar learning experiences of adapting to the challenges of working with charcoal. Charcoal is the intermediate medium between drawing and painting. The charcoal has a darker value range than the pencil, larger variety of drawing points and edges, and is easily blended with blending stumps or brushes. I use the charcoal drawing techniques to prepare the students for color, color pastels, and painting. Usually students find that their disciplined pencil technique translates very well into charcoal techniques, which in turn transition into the blending skills they will need for painting and pastel work.

The drawing on the left shows the measurement lines used to construct the face on a sheet of drawing paper. By using Mr. Tank's disciplined measurement techniques, the student was easily able to construct a good likeness in her self-portrait drawing.

On the bottom left, the student has transferred the drawing onto a gray-toned drawing paper. The student has laid-in a light value for the eyes, which are too small, and has started to lay-in the planes of the face lightly. Her contour lines are a little too dark, but since charcoal is a soft medium and the lines were drawn with vine charcoal, they are easily erased.

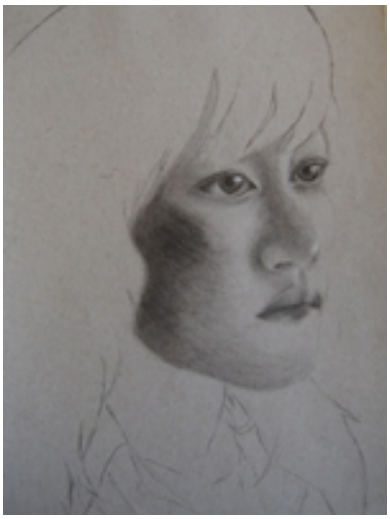
Most of the drawing in the early stages is done with vine charcoal. Vine charcoal is calibrated into the categories of soft, medium, and hard, with hard being the lightest value and soft and extra-soft being the darkest. Vine charcoal is almost a fugitive on the paper surface, meaning that it is easily rubbed off the surface of the paper with hand or cloth. Compressed charcoal and charcoal pencils have darker values and adhere to the tooth (texture) of the paper much more permanently, requiring more effort to remove and erase. The drawing is started with vine charcoal and gradually compressed charcoal is added for deeper, darker values.



In the drawing on the left, the student has adjusted the left eye and has continued to develop the planes, which are not yet fully blended.

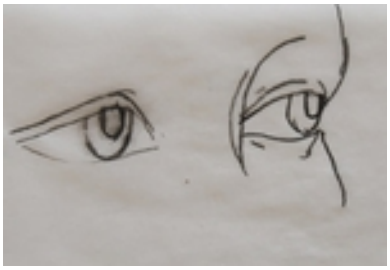
The below center left inset drawing is in the later stages of development when final adjustments can be identified and applied to the drawing. Oftentimes mistakes in drawing can't be recognized until the very late stages of the drawing. In this case, the left eye is too large, there is too much value contrast at the jaw line, the sternocleidomastoid, the elongated muscle in the neck connecting from behind the ear to the sternum, is too curved, the neck needs to be widened at the back and front, and the downward plane of the hair on the back of the head could be darker.

Pictured below left is the final state of the drawing after the above corrections were made. What sets this student apart from the rest of the students are her precise measurements and her disciplined drawing technique. Pictured on the left is a very highly visually intelligent student. What is preventing her from attaining any substantial skill development and reaching her potential capabilities is her lack of practice hours. The student is the least practiced of all the students in the Art Academy class. She, more than any other student, is and will be an artist. However, her interest is not in the fine arts of drawing and painting, but rather in film-making. The Art Academy is a drawing and painting course, and one of the criteria for grading is time practiced. The class is important to her, but not enough to distract her from her film-making interests. I agree with the student on this matter, and while I do not compromise my standards, I inform the student never to lose track of who she is and who she wishes to become. The Art Academy class is secondary to her needs and so her potential will always be limited by her individual special interests.



Another common drawing problem students encounter is making the transition from the front view to the three-quarter view of the eye. In the portrait pictured on the left, the student struggles with the three-quarter spherical structure of the eye. The eye on the left is a front view eye on a three-quarter view face, and the eye on the right lacks the structure of the spherical eyeball recessed and overlapping the protective bone structure around the eye socket.

The correct structuring of the eyes and placement of the irises and pupils are illustrated in the line drawing on the left. In the line drawing, the highest bulge or curve of the upper eyelid is towards the right side of each eye. In the drawing above, the eyes are centered and, oddly, are looking to the left or are cross-eyed, while the line drawing has the eyes in a forward-looking position. The iris and pupil shape in the student's drawing above is round, as it would be seen in the frontal view, while the iris and pupil shape in the line drawing are oval and consistent with the three-quarter view. The shape of the pupils and irises will be a continual struggle for the student through the many steps of her drawing, until the final stages where the changes will be critical to the appearance and successful completion of her self-portrait.



Pictured in the top left, the student has drawn the three-quarter view of the eyes incorrectly, and has wasted time by adding finishing details to the incorrect drawing of the eyes. She has also started to lay-in the values of the side planes of the face and nose, which should have been extended through the hair.

Another common trait in student drawing is the overemphasis and detailing of small forms that interrupt the unity of the planes. An example is in the lips in the drawing at the top of the page. The center of the upper lip has a very slight, projecting bulge and the lower lip has a very subtle indentation. Both have been overemphasized by shadows that are in too great of a contrast to the overall value of the plane of the lips. Once a value has been determined for a plane, details should be only slightly darker or lighter than the overall value of the plane. Sharp contrasts in value create distortions in the overall structural form of the plane.

Lessons not learned from drawing and shading the planes in the still life assignments will resurface in portraiture drawing. The drawing concept that downward facing planes must be in shadow and upward facing planes receive more light than downward facing planes applies to all objects being drawn. In the drawing at the top of the page, the downward facing plane of the bottom of the nose must be in shadow. What has happened is that the student has recorded in her drawing the light reflecting off her white uniform blouse, making the undercut of the nose lighter than the shaded side plane of the nose. The student is drawing and recording an observable visual conflict caused by reflected light that, more

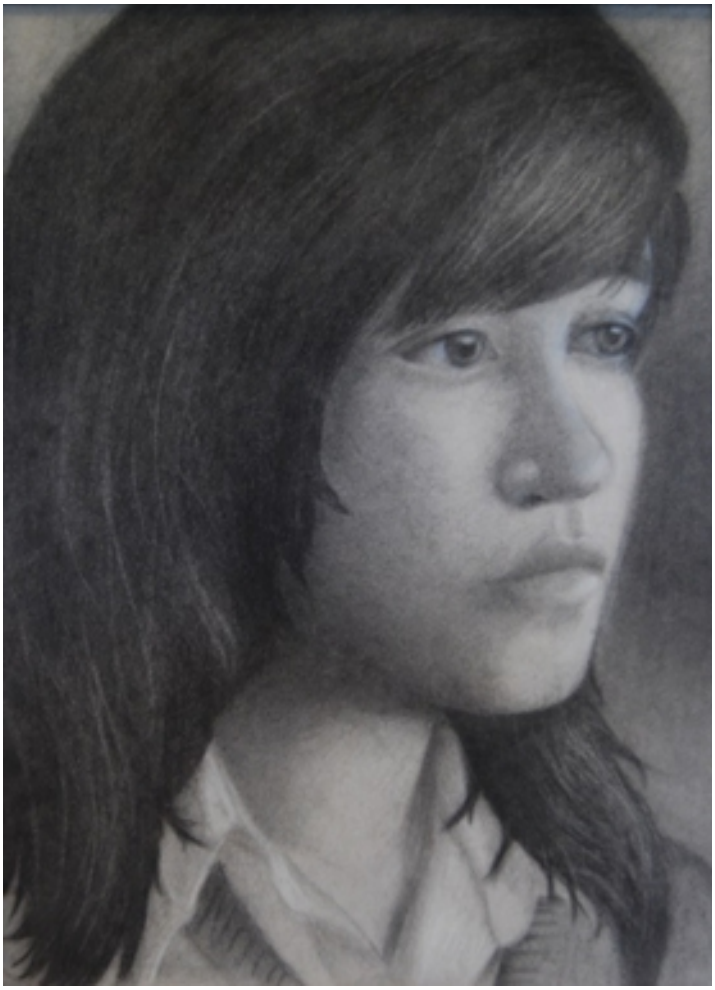
often than not, must be eliminated through the knowledge that emanates from the understanding of the use and application of the planes in drawing and shading.

The difficulties of the eyes and the undercut of the nose will persist through many of the steps in her drawing. The bottom left drawing above illustrates the student's blending of applied plane shadows with a soft brush to attain subtle transitions. The right eye looks swollen and bruised, the under plane of the nose too light, and the bulge in the upper lip over-emphasized.

Below are a few of the steps in the student's self-portrait. Look closely at the changes of the right eye, the undercut of the nose, the light on the left nostril, the shaping of the chin, the centering of the cleft on the chin, and the changing value of the planes and of the hair.

The three-quarter view self-portrait charcoal drawing began at the end of the student's sophomore school year and continued through the summer. The photographs above were taken with the student's cell phone. Each week in the summer months, students were to email their recorded drawing practice time on a time sheet, along with the current state of their drawing. I would print their work, make corrections on the printed image of their work, photograph the corrected copy, and email the corrected image along with a written critique and instructions on what the student needed to work on in the

following week. With written and drawn instructions, the student was not able to correct the mistakes of the eyes, nose, and chin and the final adjustments had to be made in the classroom at the beginning of her junior year.



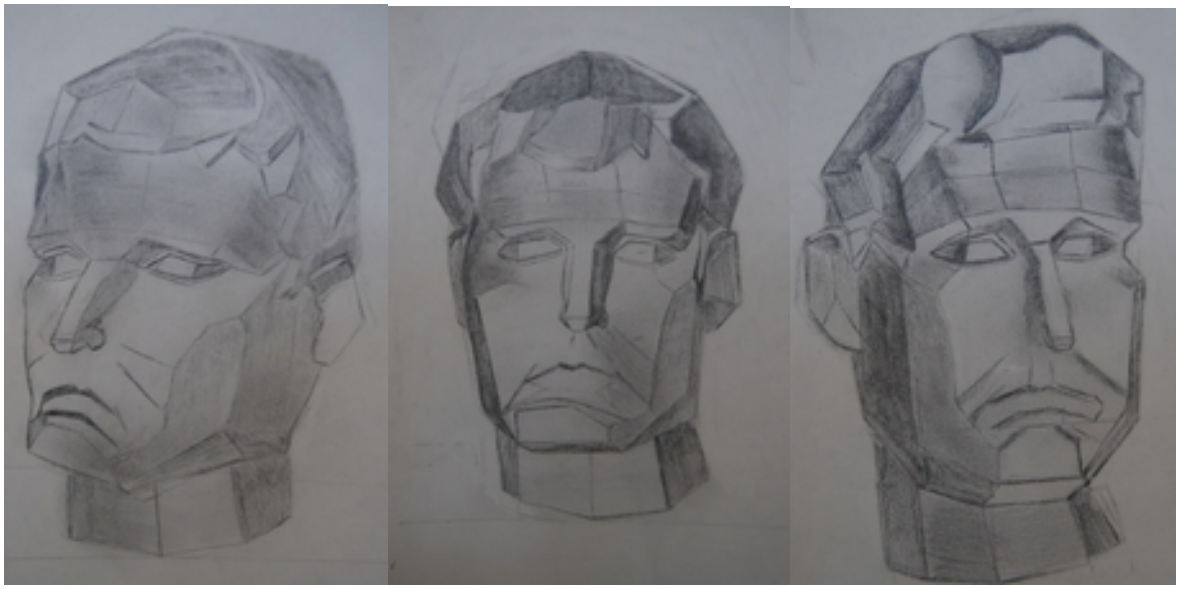
What must be fixed is the incorrect form of the right eye, the separation of the top and side plane of the nose, the shading on the left nostril, the cleft in the chin, and the dark ring that had developed around the lower lip.

Pictured on the left is the final state of her portrait drawing. Overall, it is a good drawing. The eye on the right is not quite correct, but is much better than in her earlier stages of drawing.

The goal is to move each student towards the complete knowledge of medium and subject. Students' limitations must be reduced through gained knowledge and constructive practice with each assignment. Complete knowledge is the goal; however, students cannot draw what they cannot see. The student reached her saturation point in learning and could no longer understand how to interpret and translate the forms she was seeing. Visual prompts or instructions could no longer be carried out, so the drawing was considered complete and represents her current limitation in understanding the forms of the face. To improve beyond her current limitations, she must be self-motivated to practice constructively on her drawing weaknesses. The student must study how accomplished artists have constructed the complicated facial features and forms that are problematic in context of her own understanding of how to correctly draw the human face. The drawing is good, but it will take much work and practice for her to improve and increase her visual knowledge.

The above portrait drawings were created by students who understood the disciplined and measured approach to productive drawing and learning required of Art Academy students. Below are the drawings from a student who participated in the Art Academy program when study drawings of the planes of the face-cast sculpture preceded portraiture drawings.

The three drawings below were done as a summer assignment between the student's sophomore and junior year.



The student responsible for the three drawings above has always displayed great potential in her drawing. However, she has lacked the discipline to realize her potential. She has accomplished incredible feats of non-thinking beautifully, by drawing a geometric still life with subtle transitioning shadows on the objects. Unbelievably, she placed the cast shadows on the opposite side of the shaded forms on the side of the light source. She was also dismissed from the course in her freshman year for being late and skipping classes. The undisciplined student still very much wanted to be in Art Academy and re-enrolled in her sophomore year. She was very enthusiastic, but still extremely undisciplined, and always on the verge of being dropped from the course. What kept me from dismissing her from the Art Academy course again was her intense interest in being in the course and what I perceived to be the potential her work suggested. I was curious to see if she, despite her undisciplined nature, could reach what she was potentially capable of achieving.

The three drawings above do not represent her potential; they represent her lack of self-discipline. The student was not disciplined enough to practice on her assignments during the summer. Her lack of effort is particularly glaring in her self-portrait pictured on the left. The drawing does not meet the Basic Art standards and would be a failing Basic Art grade. The portrait is an undisciplined drawing by an undisciplined student. Once again, she found herself on the cusp of being dropped from the class. After the many protests that she had worked on her drawings many hours all summer long she finally confessed to her lack of work and her last-

minute minimal effort on summer assignments. Inadvertently, the student was responsible for positive change in the Art Academy program. Her actions led to the current system of summer programming, requiring the weekly progress e-mail exchanges between myself and the students.

My curiosity got the best of me so I spared the student and allowed her to enter the Art Academy class again, even though she had not fulfilled her summer drawing assignments to the best of her ability. Artists learn from the experience of practice, which is a part of how they gain knowledge of technique. Each new artwork builds upon the skill and knowledge attained from the previous work, so each new work demands more effort than the last. Anything less than the student's best effort is unproductive and diminishes the student's skill and knowledge.

My undisciplined student was again part of the Art Academy, but I would display and use her drawing in the art room as an example of undisciplined drawing, placing it next to her more accomplished, practiced, and disciplined works to remind her that the time not spent in constructive, practiced drawing that summer would come back to haunt her in the form of what she could have learned and produced, had she been more disciplined in her limited time in Art Academy.

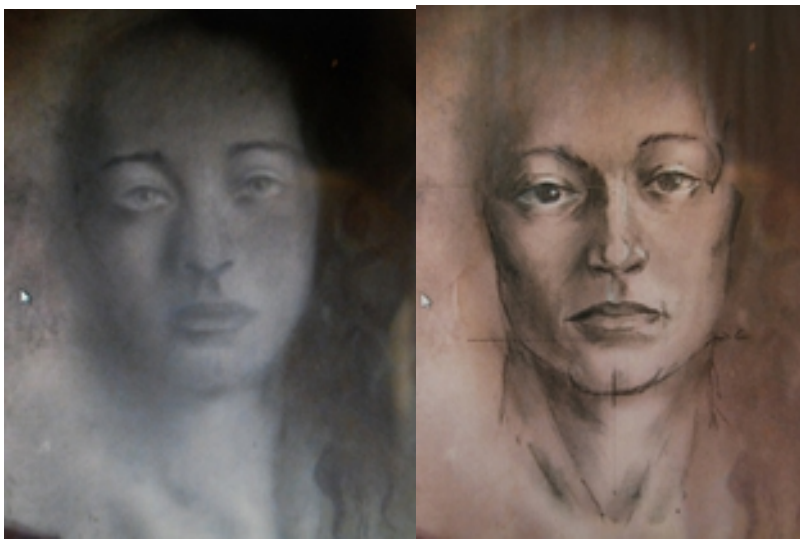
The student's first drawing is the plaster sculpture of the planes. This time she employs Darrel Tank's 5 pencil method of measuring the head. The result is strikingly different than the undisciplined plane drawings she half-heartedly attempted during the summer. The final drawing is a closer representation of her potential and shows what she could have accomplished in the summer assignment.

The drawings above, though beautiful, display her strengths in medium technique, as well as her productive thinking weaknesses. Her measuring and drawing of the sculpture was quick, efficient, and accurate. The second drawing indicates that she began her drawing with the eyes, which I agree is an acceptable first step. The second drawing also reveals what is problematic and unproductive in her drawing: Rather than laying-in a value tone for the major planes of the face and developing the whole structured form of the head, she concentrates on individual planes and copies what she sees, rather than developing an understanding of the structure and form of the face. The third image illustrates that she is drawing plane by plane and is constantly reajusting the value of each plane. She is blinded by the beauty of the effects of the medium and is not really seeing or understanding the structured planes of the face. Another bad habit that will resurface in the portrait drawing: after the transfer of her measured drawing to the gray toned paper, the drawing is continually lost and rubbed out, and she has to redraw the lost segments of her drawing. This will lead to distortions in her drawings. The completed work is an excellent and sucessful drawing, but the assignment was meant to be a quick, preparatory drawing for a portrait, not a two-month long project.

In the picture on the left is the student's measured portrait drawing with planes being applied to the measured drawing on the right. The measurements are correct and the planes are close to what they should be, so she transfered her drawing onto a gray toned drawing paper.

Her poor production habits surface immediately. In the bottom left drawing, the right eye is far too detailed for this early stage of the drawing. Time was wasted on an eye that was no longer the correct size or in the right position. In the second drawing on the bottom right, the right eye is refined to a higher degree and the left eye is a different size and at a different angle than the right eye. This is not uncommon with untrained artists. They will produce delicately drawn, detailed, eyes and not notice that they are not in the correct proportional position; neither will they notice the mistakes in the rest of their drawing. They become mesmerized if not blinded by what they perceive to be the perfection of the drawing of the eyes.

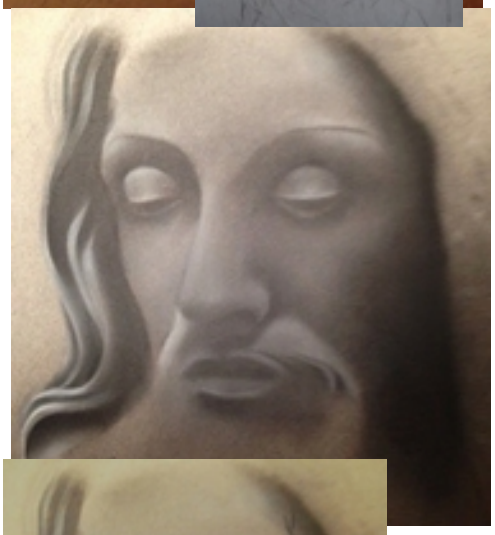
In the six stages above, the student is constantly adjusting the eyes, redrawing facial features, and working on individual parts of the face, without any sense of overall structure of the face or an assigned value to the planes to establish the value range, which is the establishing of the darkest and lightest values in a drawing. The student has little to no knowledge of form, because in her previous plane drawing of the face she was just drawing flat, colored, shapes on a flat sheet of paper that, when viewed as a whole, created a structured form of which she had no knowledge.



The above left drawing is one of the stages of the student's portrait drawing. The drawings above and right are photocopies of the student's drawing, in which I had drawn the planes of the face for her to use as a guide to correctly structure her drawing. In the corrected drawing, I was drawing on top of a photocopied image of her work, so the position of the left eye was not correctable on the photocopy. However, I told her the left eye was too low and too far to the left, and needed to be moved to the right.

Her response was to ignore the face and work on the hair. The final state of the drawing is pictured on the right. The surface of the paper was a scarred battlefield where too many mistakes had been drawn and erased. The paper had the texture of a worn-out, fuzzy sweater, unable to hold any more charcoal to correct a partially formless and forlorn face that adequately expresses the failure in her drawing.

The student's approach to portrait drawing is not unique. Over the years I have seen countless art students begin the drawing at the eyes and radiate outward from a single starting point, and many were doing so without any knowledge of proportions, thus their drawings were plagued with the same problems exhibited above. The student responsible for the drawing above still has insufficient



knowledge to be consistently successful in portraiture drawing. The difference between the artist above and the two prior artists is in their beginning approach to the drawing. All three artists began with the eyes, but the first two immediately began laying-in the major planes of the face before proceeding to refine and detail their drawings. Those two artists had a far greater understanding of the three-dimensional form they were drawing and how best to represent what they were seeing in a visual notation system for the two-dimensional drawing format.

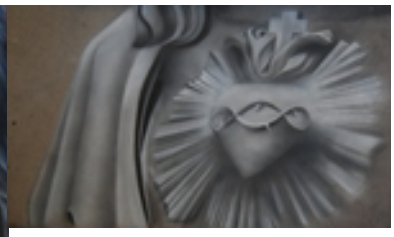
It is pointless for a student to go through the above drawing process and learn very little. Again, the problem was her process. She never solved the problem of the whole drawing and focused on misplaced details that had to be erased, moved, and redrawn constantly. She never established the major planes of the face or the value range of the drawing, and she never got beyond her obsession with the eyes.

It was time for the student to turn her attention away from the sad, pouting, rubbery face and try again. I reassigned the student to work on her senior assignment of drawing a religious work of art to become part of the school's permanent collection. The assignment was a three-quarter view drawing of Jesus with the Sacred Heart. The appeal of the assignment was that Jesus' eyes were half closed, so the meticulous detailing of the light hitting the iris wouldn't hold the blinding seduction it had in her last drawing.

As can be seen in the drawing on the top left, the student is again radiating out from the starting point of the eyes. I placed an insert into that drawing as a comparison and a model the student should follow. In the insert, the student started with the eyes and then quickly laid-in the side plane of the face and nose. She established the general form of the whole face that would guide her in refining the smaller planes and details of the face.

In the middle drawing, the student cannot locate the side plane planes, or create the roundness of the eyelids or planes that form the structure of the mouth. Not having the eyes on which to focus, she turns her focus on the completion of the hair on the left side, which, no matter how beautifully the rendering, cannot hide the flaws she had created in her drawing. The inserted bottom drawing is a photocopy of her drawing on which I had drawn the right side plane of the face, the roundness of the eyes, and adjustment to the nose and the structure of the mouth.





To the left are the final steps in her drawing. The bottom right is the finished drawing that was added to the school's permanent collection. Her drawing is one of the strongest works in our collection. It had received a first place award in the Catholic Youth Organization Art Contest and was used to represent our school at an Ursuline conference. She had taught herself how to use the charcoal and white chalk medium by using an assortment of paint brushes, makeup brushes, blending stumps and sandpaper block. She was spending seven to twelve hours a week of outside of class time drawing on her assignment. She would virtually come and go in a cloud of charcoal leaving a dusty residue wherever she had been and on whatever she touched. She had become self-disciplined and successful, providing, of course, that someone was available to instruct her to correct her mistakes. This was the student's last portraiture drawing and it was very successful. If she were to do another one without instruction, the outcome would be anyone's guess, because of the basic lack of knowledge of the planes and structures of the human head. She relies on copying and not on visual thinking, and so she can never think through the process of drawing a head, but only mimic what she sees. I am sure there are mesmerizing segments of her drawing, because her technical skill and knowledge of medium is very advanced. However, she does not have the understanding of form to apply her technique skillfully.

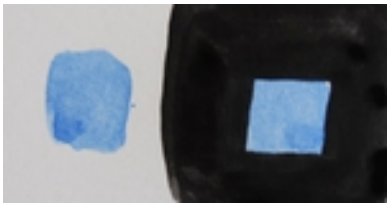
This student was difficult to work with, though she had made tremendous strides from the undisciplined student of her freshman year when she was dropped from the course. However, she always had enough magic in her to keep me curiously wanting to see what possibilities were in the absent-minded, chaotic whirlwind that had entered my class. The time spent with this student was challenging, but worth the effort, and hopefully the experience was beneficial for her as well. Her next drawing will be the starting point of Art Academy 3.

Art Academy 3

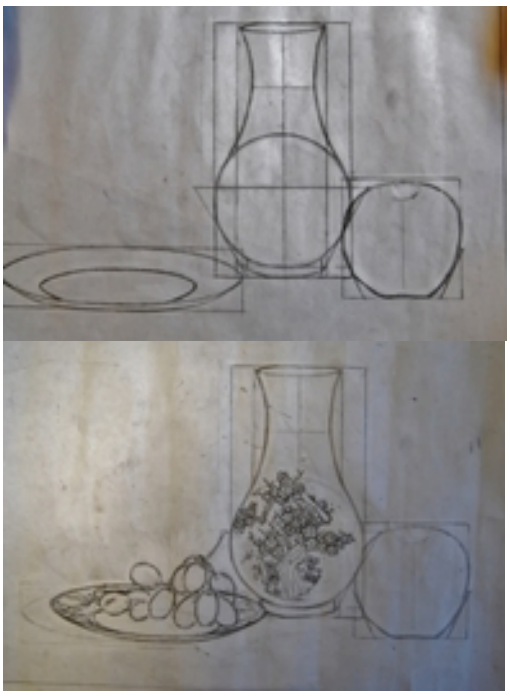
In Art Academy 3, the students make their final corrections on their three-quarter view portrait and return to still life drawing with the intent to apply color. The use of color in drawing and painting is far more complex and delicate and doesn't allow the many changes and corrections that the monotone charcoal and pencil drawings do. In order to use color, the student must first understand the structure and form of the objects being drawn.

The simple black and white drawings of pencil or charcoal can be quite beautiful, but because of the starkness of the medium mistakes are impossible to hide and are easily detected. Color is far more visually seductive and can disguise errors of composition, structure, and form. Color also has movement, and can create and occupy different visual space within a work of art, depending on the color's chroma. There is far too much to know about color than can be taught within the limitations of a high school program. What I recommend is that students read Josef Albers' *The Interaction of Color*.

Due to the time constraints of the program, I teach color through assigned projects. What is discussed and demonstrated is warm-cold contrast, which is the temperature of color, chroma, which is the intensity of the color's hue, or the relative brightness or dullness of a color, color subtraction, and light-dark subtraction.



The top left image has two blue dots. The left dot is warmer than the right dot. The blue on the left is warmed with green, while the blue on the right is cooled with violet. In the bottom left image, the two blue center squares are the same color. The one on the left surrounded by white looks darker than the blue square surrounded by black. The white is subtracting the light from the blue on the left, making it appear slightly darker, while the black is subtracting the darkness from the blue square, causing it to appear lighter. In the image on the top right, a high chroma, cold red, occupies the left side, while a high chroma, warm blue-green, is on the right. The dot in the center is predominantly the cold red with a lesser amount, or the warm blue-green added. The result is that the cold red is reduced to a lower chroma. The more blue-green added, the lower the chroma, and the more neutral the color will become, changing to a gray or brown. In the bottom right image, two identical orange squares are surrounded by yellow on the left and red on the right. The orange on the left has the yellow visually subtracted from it, making it appear redder than the orange on the right. The yellow is also lighter than the orange and is visually subtracting light, making the orange on the left appear darker than the orange on the right. The red on the right is visually subtracting the red from the orange, making the orange appear more yellow. The red is also darker than the orange, and is visually subtracting darkness from it, making it appear lighter than the orange on the right.



What is essential to know about the appearance of color is that it is relative, due to the interactions of color to color, tints, shades, and chroma. If an artist doesn't have a strong understanding of the form, movement, or spatial appearances color can visually produce, his or her painting can quickly become a muddled mass of visual confusion.

What is essential to a figurative work of art is a strong foundational drawing. Pictured on the top left is the measured drawing of the same student who had produced the Jesus and Sacred Heart drawing. She was very precise and disciplined in using the measuring and blocking technique described in Juliette Aristides' book *Lessons in Classical Drawing*.

The second drawing on the left has the grapes drawn, as well as the patterns on the plate and vase. The pattern on the plate is viewed at an angle and is also receding in space, and the vase is very intricate and is distorted by its curved surface.

In her past drawings, her first solution was to omit the pattern designs, or create new, simpler patterns. The patterns posed a drawing challenge beyond her drawing abilities. The goal of every artist is to amaze and impress the viewer with technical knowledge and skill. From a viewer's perspective, intricate patterns rendered in perspective on a three-dimensional object imply great skill. When the student does not have the visual skill to solve the technical problems posed by the patterns, rather than accept failure, an alternative solution must be sought.

For centuries, artists have been using optical lens projections to solve the same visual limitations my student was facing. Rather than using a camera obscura or a projector, the student photographed the vase and plate, reduced or enlarged the photo image by using a calculator to determine size difference, and sized the image with a photocopy machine. The photocopied image was transferred by tracing the pattern onto her drawing. Students often feel the optics solution is "cheating," where artists, myself included, think of it as problem -solving and production technique. Given a traced image, a non-artist without drawing skills would be incapable of producing art with the tracing; therefore, using an optic solution is a production tool that should not be ruled out when the artist has reached the visual limitation.

On the left is the drawing with the plate, grapes, drapery, and vase. The pattern has been drawn on the plate and the vase has been fully formed without the pattern. The viewer's eye is quickly drawn to the plate, with its

intricate pattern and clustered grapes. The well rendered but unadorned vase has little visual weight or visual attraction, and is easily overlooked by the compact detailing of the plate. The eye is also drawn to intricate details visually compressed in small areas that visually or optically carry more visual interest or visual weight than larger, undefined areas of a drawing. To pull the viewer into the center of the drawing, the vase needs the visual weight of its intricate colored pattern to pull the viewer past the plate and grapes combination.

In the final drawing, the intricately drawn vase functions to create a balanced color harmony that helps move the eye through the entire composition. The blue in the vase establishes a visual relationship between the plate and vase, causing eye movement from one object to the other, preventing the plate from being isolated from the rest of the composition. The yellows and yellow-greens have established a visual connection to the yellow-greens of the grapes and strengthen the visual relationship between the plate, grapes, and vase and the yellow-green on the apple in the foreground. The reds and red-oranges in the vase make a visual connection to the background colors and the apple in the foreground. The result is that the eyes visually move through the entire composition, due to the relationship and harmonies of the colors. It is a well-composed, harmonic drawing done by the artist pictured on the left. If she were to continue making color still life drawings, I would have no doubt that they would be well drawn and successful, provided she maintains her skills through continual practice. If not, her skills will quickly diminish and ultimately vanish.

The next watercolor still life, created by a different student, was started in the summer months at her home where she selected this strange assortment of objects. The highly reflective chalice was beyond her capabilities and the collapsible cup and gray candle holder were odd objects to use as subject matter alongside the reflective chalice. In her painting she makes a few typical mistakes. The most obvious is the chalice, which has very little three-dimensional volume. The problem with the chalice is the flat-painted reflections that are unrelated to a metallic, reflective surface, or to the chalice's three-dimensional volume. The second obvious mistake is that the cast shadows are black at the base of the objects and transition to a lighter gray. The student has ignored the fact that the objects are casting shadows on a burnt sienna surface, and so the color of the surface shows in the cast shadows. The student simply uses and maintains her old elementary school misconception that all shadows are black, regardless of the quality of light, background, or surface color.

The objects selected in the still life are not interesting, but they do offer important lessons for the student. The most appealing aspect of the still life is the patterned drapery on which the objects are set. She omits this because she lacks the skill to draw the pattern and has not tried to find a solution to progress beyond her limitations.

After completing a second watercolor with similar results, I showed the student how to use egg tempera with both pigment and regular, pre-mixed, water-based tempera. By mixing an egg yolk with regular water-base tempera, the paint becomes more transparent and dries to a harder, non-water soluble finish, making the building of paint layers possible. The painting on the top left is her first attempt. The student could not visualize how to paint the reflective chalice.

The painting in the middle is the product of a step-by-step demonstration I performed for the student on a separate sheet of heavy-weight, watercolor paper.

The painting at the bottom left of the page is the student's final painting. She was able to learn from the step lessons provided and successfully painted a chalice that had three-dimensional volume and a reflective surface. She also sized and transferred a photograph of drapery onto her painting, which made the painting much more interesting. Both the chalice and drapery communicate the competent skill of the artist to the viewer. The drapery also illustrates form, volume, and space. There is a pronounced value change in the foreground, suggesting a directional change in the planes, consistent with what one would see viewing a tabletop. The colors of the drapery are a higher chroma in the foreground, with greater contrast in the pattern colors, which diminish in chroma and clarity as the design recedes to the back of the table.

Blue is the complementary color of orange in the burnt sienna of the drapery. The blue is muted to a low chroma and is used to push the burnt sienna drapery forward. The blue, because of its low chroma, easily recedes in the painting.

The blue background is repeated in the shadows on the cup, the reflection in the chalice, the handle of the scissors, and the lighter tones of the candle holder.

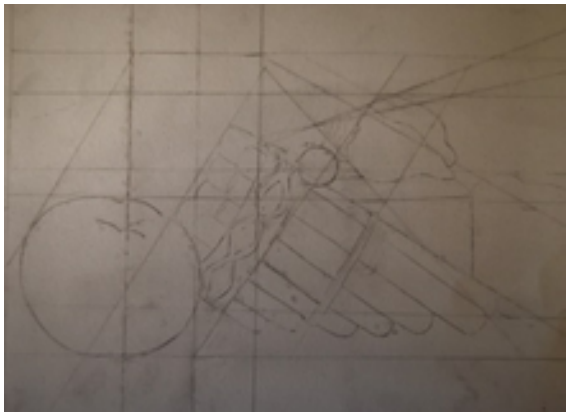
There are no isolated colors and the eye moves through the composition through the color relationships and harmonies.

In this painting, the shadows look as if they are being cast on a burnt sienna patterned drapery rather than on the black holes she had painted in her first rendering.

The student's first painting represents her limited skill in color medium production. Teaching involves giving adequate instruction to progress the students' visual thinking skill beyond their limited knowledge and experience. Each student's needs are individual and cannot be folded into objective-laced language, and that is why it is necessary to express visual objectives as pictured in the above middle painting. I presented the student with production techniques and visual objectives, and the painting above on the bottom left visually expresses what the student learned. A visual objective in a visual program is time consuming, but more effective than a written objective. How the objectives are met by the student are also expressed in a visual format.

Another example of an Art Academy 3 visual lesson plan is presented below. During the summer months, the student produced a less than successful still life watercolor painting. I created a step watercolor lesson plan to inform and improve her productive thinking.

Below are four illustrations of the visual lesson provided for this student. The fourth image is the final



objective the student strove to achieve.

The above lower right image is the student's composition drawing. The student arranged the objects to form a series of echoing triangles.

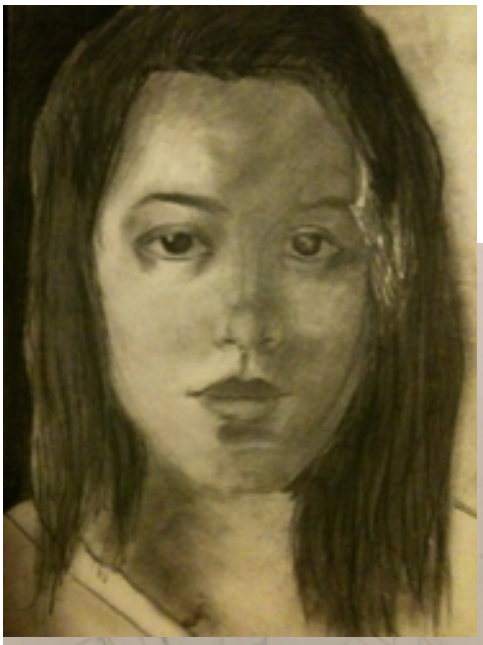
What is missing in the student's summer watercolor painting is the underpainting, the colors that are used to build the form and tone that effect the actual or local colors of the objects. The below left image is the transferred drawing. In the middle, the student is using drafting tape to help maintain a hard edge on the candle holder. Burnt umber is used to build warm shadows on the flute and apples,

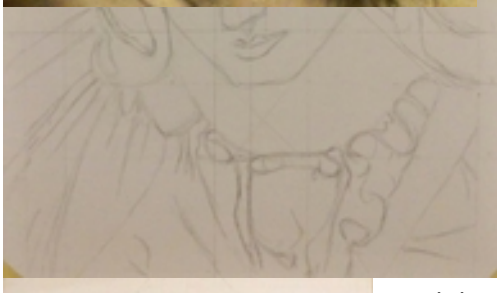
and red violet is used on the candle holders to produce a unifying undertone for the green and brown that will be applied over them.

Below is the gradual building up of transparent layers of color.

The painting on the top left is the objective I presented to the student, and the second picture is the student's finished painting.

The Art Academy course is not a course that sponsors creativity; it is a course that teaches the academic learning of technique. What the student's painting illustrates is that she met the objectives of the assignment and that she can apply the learned method of productive thinking to create her own paintings.





Art Academy 4

In Art Academy 4, the students are to produce a religious work of art for the school's permanent collection and learn the techniques of landscape painting. Two senior project paintings for the permanent collection will be discussed in the museum classes in chapter 9, and the Jesus and Sacred Heart drawing has already been discussed in this chapter.

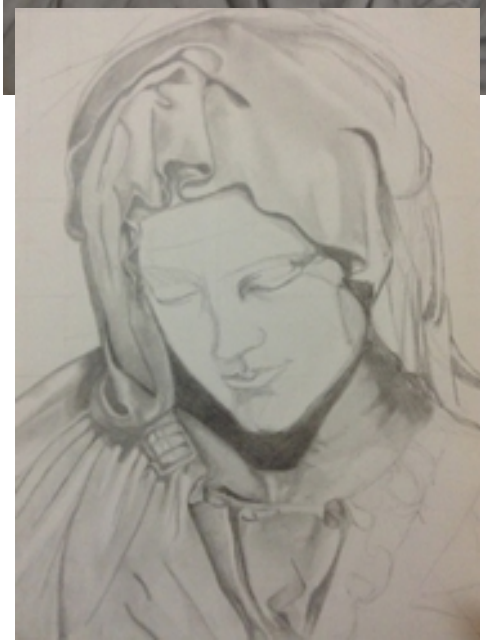
The drawing on the left was started in the summer between the student's junior and senior year as her senior drawing assignment. The student's model for her religious drawing was a detailed photograph of Michelangelo's *Pieta* sculpture that she had found on the internet. The drawing on the left represents her measured drawing that would be transferred to the 100 lb. Bristol vellum and be developed in the pencil medium.

The second drawing is typical of what I would expect to see from a student who had no formal drawing training. Untrained students typically avoid drawing what they find most difficult, putting it off until the last step, hoping that their drawing strengths in less challenging parts will hide their drawing weaknesses and the lack of knowledge such weaknesses suggest. The avoidance strategy never works, and the students, in avoiding their weaknesses, fail to progress.

After three years of advanced training, it was bewildering to have a student begin her drawing as if she had never had a drawing lesson before. Her weak drawing strategy can be understood through the assessment of her previous portrait drawing assignments.

The two below right drawings clearly illustrate the student's difficulty in understanding the planes and the structural forms of the face.

The self- portrait to the left is an interesting drawing and shows progress in the student's understanding of the planes, but it also clearly displays the confusion she sees when drawing the face. The left side is adequate in her



suggestion of the side and front planes, until they dissolve into confusion on the forehead and the chin. Other major problems are the lack of symmetry in the lips, the difference in size of the eyes, and the lack of structural form of the nose. Both her self-portrait and the previous two drawings, explain the omission of the face in her senior project.

In the next stage the student drew in the features of the face, but the knowledge of the planes were still a weakness that is especially evident in the drapery and the shadow of the neck. The reasons for creating the planes are to establish and control the space where the drapery is placed. For example, in the drawing on the left, the drapery fold at the top and left of the head begins on the top plane of the head and ends on the left plane of the head. The drapery fold is represented as one value, the undercut of the drapery is drawn as one dark value, and the fold that divides the drapery and its undercut is also a single light value as it passes from top plane to side plane. When a value (light or dark) remains the same as it passes from one plane to another, it does not create three-dimensional volume; it remains visually flat, and does not have the spatial movement necessary to create the illusion of form. The drapery on the top plane must be lighter than the drapery on the side plane; the fold that separates the upward facing drapery and its undercut must be lighter on the top plain and become darker as it progresses to the left side plane. The rule is to establish the overall value for the plane, and the object's form should be only slightly lighter or darker than the value of the plane.

Another example is the solid dark value that begins on the right side of the neck and wraps around the chin to the left side. The value never changes and it becomes a flat shape that diminishes the illusion of three-dimensional form built around it.

Pictured on the left is her finished drawing. It is a successful drawing because it represents substantial improvements in her drawing technique and increased knowledge and understanding of the planes and form.

The apprenticeship method of cooperative visual thinking between teacher and student is responsible for setting new achievement standards based on the potential of each individual student. It is now the student's responsibility to constructively practice to maintain and exceed the standard developed by the cooperative thinking apprenticed method of the teacher and student learning relationship. The work produced in the cooperative learning environment becomes the assessment tool the students themselves can use to determine the success or failure of their future work. The responsibility for learning is placed on the students.

In the end, the work of art has more validity than a subjective letter grade. Students understand if they have failed or succeeded, regardless of the outcome of the work. They understand the difference between the learned knowledge they possess and the production achievements from instruction of knowledge they do not yet fully understand or possess. What an artist understands and a non-artist seldom realizes is that there is room for improvement and more to be learned through practiced experience that will set new goals beyond current limitations.

The final senior project of a religious subject drawing or painting is a challenge for most of my students. The works are religious portraits that focus on what they can effectively draw based on their studies. It is rare that a student is competent enough to include more than just the head and occasionally the hands. Unfortunately, due to lack of time, figure studies are not a part of the Art Academy curriculum. The only way for the class to progress into the area of figure studies is to enforce more outside practice time so subject studies can progress at a faster rate. It is seldom that I have students that practice beyond the minimum requirements and so student learning progresses at a slow pace.

The student who drew the entombment of Christ featured on the left was a self-disciplined student capable of meeting assigned deadlines while maintaining the highest achievement level of her technical abilities. This student was also proficient in her measurements, and figurative drawing is the ability to correctly and accurately measure. Because of her willingness to put in additional practiced hours of work, and through her measurement and technical drawing skill, she was able to produce the most complex artwork in the school's permanent collection.

The students begin their religious artwork for the permanent collection during the summer between their junior and senior year, to insure completion of the project. When their permanent collection work is finished, they spend the remainder of their senior year in landscape painting.

What an untrained student typically will do is begin painting the subject and fill in the rest of the painting around the completed subject. Students have little knowledge of medium and less knowledge in color and how color optically creates space. Students, if

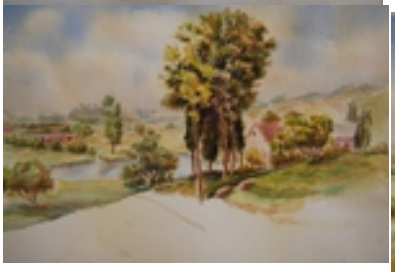
given a paint set and told to paint, will more than likely paint as they did in elementary school, with bright color of equal opacity.

What I have done is to create a visual lesson plan that demonstrates the step-by-step process of painting with the assigned medium. The assignment is a landscape watercolor and the student who had created the entombment of Christ was assigned to paint the above watercolor lesson.

The painting above is the demonstration or the product of the visual lesson I had prepared for the student. To the left is the first step I had photographed. However, in the student's work, all of the earlier steps leading to this point in the painting are illustrated. Since the student's steps are more complete, I will merely display the six steps I had documented in the lesson presentation for the student.

The bottom right is the final stage of the painting.

This is the student's first stage in the painting. The sky was painted in two to three transparent layers of warm and cold blue and burnt umber. Next the tree line on the horizon was transparently painted with low chroma greens. The surrounding landscape in the background was painted transparently with muted greens and ochers. The middle ground building and trees and the trees in the foreground were transparently painted to mark their location so they would not get covered or lost when the remainder of the background and middle ground was painted.



In this step the middle-ground was painted transparently, with a slightly higher chroma, meaning the colors are still muted, though less muted than the fields and trees of the background.

The highlights or light areas were painted first and were painted transparently. The white of the paper provided the tint (lightness) to the color, and so it was not necessary to add white to the watercolor paint. The more transparent (water to pigment ratio) the application, the lighter the color appears, because more white of the paper is showing through the transparent color.

After the lighter highlights were painted, darker transparent color was added for shadows. It is best to keep the application of paint in the background and middle ground transparent.

Additional layers of transparent paint were added to the middle-ground. The lighter colors were transparently painted in the foreground trees and the cast-ground shadows were added.

More of the foreground was added and darker shadows were added to the foreground trees. Objects in the foreground could have been painted more opaquely, but it is always best to start transparently so corrections can be made with a more opaque application of the paint.

The foreground was painted over a transparently painted background, so there

were no gaps or white space between foreground objects and background space, which normally occurs when students start with the foreground objects and paint their way back to the background.

Below are the remaining steps.

Above left is the visual objective set for the student by my visual lesson. Above right is the student's completed lesson. All assignment objectives were met by the student. The painting above right is the student's first watercolor landscape. There is no doubt that the student understands the technique and process of watercolor landscape painting and can now use her gained knowledge to produce her own landscapes without much assistance or instructional guidance. She has learned how to think visually in the watercolor medium and the experience of practice will continue to inform her on how best to paint with watercolor.

Pictured on the left is the visual objective for two students who have never painted a watercolor landscape.

Below are the step-by-step lessons presented to these students.

The above-left is the instructional objective and the above-right is the student outcome. The student, who had served only one year in Art Academy, was very enthusiastic with a high visual intelligence. She was willing to put in a lot of practice hours to compensate for her lack of drawing and painting skill and knowledge. She often became dissatisfied with her drawing and started over as many times as it would take for her to reach the high standards she set for herself. The painting above, I believe, was her third attempt. The student's outcome was exceptional, considering her limited knowledge and experience in techniques and mediums.

On the left is the outcome of another student, completed a year after the other student's painting above. In all three landscape paintings, each of the students demonstrated the knowledge and skill to continue painting on their own, and the ability to look at a landscape and know how to construct a painting from the images they saw. The lessons presented the students with the necessary visual thinking skills to become independent, self-taught artists. It then becomes their responsibility to search for new knowledge that will improve their skills as well as enable them to learn from the experience that only comes from many hours of practice.

Summary

Only a few individuals have an interest in art, and only a very few of those individuals have the ability - the genetic predisposition, the visual intelligence - to be artists. These individuals do not wait for a community or scholastic-sponsored art program; they begin drawing and making art at an early age and

never stop. Their art production is generated, not by external influences, but by internal necessity. They are not discouraged by parental pressure, peer pressure, or lack of art programming. Visual art is a part of their being, and for some it will become the reason for their existence. Needless to say these individuals are the ones I seek to teach, but unfortunately I see too few of this type of student enrolled and participating in the school where I work. In my experiences teaching at the Metropolitan Museum of Art and the New York Summer School for the Arts, I have encountered a few such students, some who possessed a far greater visual intelligence than I , and with skills equal to or greater than mine. They learn with their eyes and by their own experience of working and producing art through the many hours of practice accumulated over the many years of their self-interest learning in visual art. What I can offer these students is learned knowledge that they can add to their intuitive production skills and I can point to resources to assist them in making informed, productive thinking choices.

There are varying degrees of visual intelligence and interest in art, and visual art is not for everyone. One cannot produce or manufacture an interest in art where it does not exist; neither can artists be made without the requisite visual intelligence. An art program can't just throw a blanket over everyone and decree what the art experience should be for every student who can hold a pencil. If you place an enthusiastic student with a high visual intelligence in a class of less enthusiastic, non-visually intelligent students, the higher-performing student will be denied the productive learning time and experience they need and deserve. The reason there is a separation of programming is to insure each student gets the correct productive experience based on their learning abilities and the merit of their work.

The Art Academy was created to insure that those students with a higher visual intelligence would be placed in a learning environment to receive the individual instruction necessary to meet their higher productive learning needs. It is not unlike the categorization or stratification that other academic courses use in structuring their learning environments based on student ability. The goal is to educate and advance the highly motivated student with the essential intelligence to the position of an independent self-learner that can go beyond the limitations of a classroom and institution.

I can provide the instructional programming for visually advanced students and I can give the individual instruction specific to their learning needs, but it is all useless unless the students practice their lessons, repeat their lessons over and over until production memory exists in their hands, arms, eyes, brain, heart, and their entire being… until making art becomes something else, something other, something beyond everyday normal existence. Students very seldom reach the expectations I have for them simply because they do not put in the time to experience learning in the arts. Practice is the most significant part of learning in the arts. The student projects I have presented in this book have the appearance of successful cooperative thinking of instruction and learning, but it is all temporal and illusory because insufficient practice has not insured real and substantial learning from the students. Standards have been set in the classroom, but cannot be maintained without practice. Students have gained knowledge, but they have chosen not to exercise it, which means I am working with students with a passive interest in art, not truly passionate artists.

In this chapter I have included failures as well as successes. Failures nearly always contain the best lessons for teacher and student alike. When students make procedural mistakes that are displayed as errors in their work, this provides a valuable lesson from which the rest of the students in the class can see and learn. The same is true for correct procedural production when it visually exemplifies quality and a skillful outcome. The students will be able to see firsthand and learn from other students how

production procedures and the skillful application of medium techniques produce positive and visually rewarding results. No matter what a student does in class, whether success or failure, it will provide an invaluable lesson from which the rest of the students can learn.

Student failure occurs when a student and teacher do not have a common language to communicate visual ideas. The student's failure informs the instructor that the current means of communication are ineffective for the student and so the instructor must search for alternative words and images to improve the communication and improve the student's results. It is the student who has the limited visual vocabulary and it is the responsibility of the instructor to improve and clarify a visual dialogue with the student. In the search for the meaningful learning dialogue, the instructor will eventually encounter the student's limitations, where further visual understanding and technical achievement is not possible at the student's level of development. The blockage of limitation is consciously discovered and discussed, and the only means of progression beyond the student's limitation is through constructive student practice on the skills and knowledge that are lacking. Most students, by not constructively working to reduce their limitations, are lacking in the determination and passion to succeed as actively learning artists. This is the reason why most students don't become artists or art professionals and remain as interested hobbyists with many limitations.

Art is an ongoing learning process of attacking one's intellectual and technical limitations to produce what is inconceivable through the current density of one's own veil of limitations. It takes great effort to succeed in the arts, an effort I rarely see in students who are willing to succumb to their limitations.

I constantly remind the students that the course isn't a creative exploration into the imaginative potential of the artist, but rather an academic study of the techniques and elements of art so that they will, after much practice, have the skill to create and knowledgeably express themselves through the visual arts. What the students learn in the Art Academy is not a final goal but rather a foundation for future exploration.