

## Museum Studio Art Classes

### The Modeled Learning Experience

I have taught at a number of small museums, but my most memorable museum teaching experiences were at the Metropolitan Museum of Art. The Met was an endless resource that provided innumerable patterned lessons from the world's greatest artists. It was always an easy task to walk through the galleries to develop a project lesson to be taught in the museum's studio classrooms.

The museum is a learning enrichment center where students can be introduced to their assignment by viewing and dissecting, through discussion, great works of art that become the working model for their assignment. The advantage of a large collection museum like the Met is that it contains multiple works of single artists and multiple works of multiple artists working within a single artistic movement. When viewing multiple works by an artist or an art movement it is easy to point out the distinctive patterns characteristic of the artist or movement and single out those characteristics as the focal point of the lesson. The basis for the lesson is never to copy a single work of art, but rather to emulate the production patterns produced by the particular artist or art movement. The students need not focus on the subjects of the artworks but rather on the knowledgeable production patterns of the artist's visual intelligence.

It is always optimal to view the original artwork and not a reproduction; this is especially true for paintings. A photograph is always a translation of a painting, drawing, or sculpture and cannot transcend the characteristics of its own photographic limitations. To understand a painting you must see a painting. A photograph will take the distinctive visible layers of paint and homogenize the layered color and brush stroke of a painting into one mono-impression image.

The co-subjects of any painting are the paint and the visual painted image. The quality and skill of the intelligent application of paint is as important to the visual image and meaning of a painting as the understanding of syntax in creating an intelligent writing of a novel. When students look at a reproduction of a painting, they acquire very little of the knowledge essential to becoming painters. Painting is not a pictured image; it is the knowledge of the application of paint that is only learned through the study of painting techniques, which are only visible through studying paintings, not reproductions of paintings.

The best way to learn about painting is through direct visual contact with paintings. This applies to all other media as well, and it is for this reason that the art museum is a valued learning institution. There are, of course, many who disagree with my opinion; however, I firmly believe that one learns from the established patterns created by genius artists who have provided a multitude of visual lessons from which aspiring artist can learn.

The Met was an important part of my own learning program. The advantages of independent study of the museum's collection over a sustained period of time were more beneficial to my visual art education than any other formal education program.

The Metropolitan Museum of Art is an immense institution with diverse collections and can be overwhelming to the student viewer. Viewing art is exhausting because it requires intense mental focus, and most viewers' mental alertness is expended within about an hour. There are occasions when casual viewing and directionless exploring are beneficial; however, for a learning experience, I recommend that students narrow their focus and go into a museum directed by what they need to study and focusing their attention only in the area or gallery that best facilitates their objective learning. The student learner should allow their familiarity of the museum to grow with and according to their learning interests. In doing so the museum becomes a learning institution and the artworks of geniuses will freely instruct generations of students.

### **Modeled learning: Pattern Relationship of Figure and Ground**

I prepare for a museum class by walking through the museum's collection and building a lesson around a few selected works of art. In the modeling of a Van Gogh assignment, I had decided to do a paint to print translation for two reasons. Firstly, the printing process is a great equalizer of student production abilities. A block print can hide poor drawing ability while allowing more chance occurrences in composition, form, and subject, to ground relationships. Secondly, students often focus solely on recognizable objects and not on the object's integration into the pictorial composition.

The purpose of this class assignment was to raise the students' awareness to the importance of the surrounding background space and the essential role it has in relation to the subject. Van Gogh is the perfect instructional artist because of the clarity and boldness with which he expresses the idea of a congruent subject object and ground relationship into a unified pattern of an artwork. In Van Gogh's work, it is easy to see the compositional rhythm that flows throughout the painting, or the juxtaposition of the curvilinear subject in contrast to a static background, in addition to how he constructs form with his brushstroke. Van Gogh gives equal consideration to every part of his artwork, and in doing so, creates a unified whole, a complete composition.

The goal of this assignment is not to copy Van Gogh, but to learn from the way Van Gogh sees and thinks about composition. By switching and translating from Van Gogh's paint medium to a print medium, the students have to focus on how to construct a rhythmic composition that will keep the eye flowing throughout the entire work of art. The end goal is to change the way the students both see and think about a work of art and to influence their approach to creating their own art.

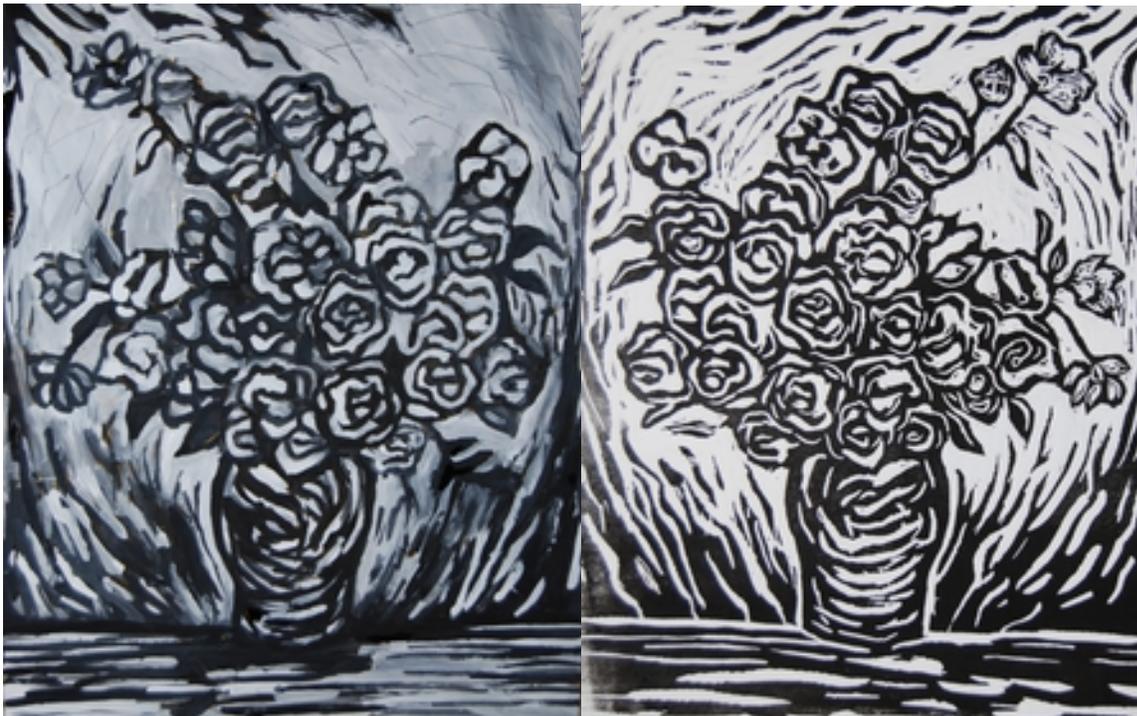
The following works are grouped by artist. I begin by citing the Van Gogh source, which can be found easily on the Metropolitan Museum of Art's website, followed by the students' ink and white tempera drawing on linoleum, and finally, the progression of print stages.



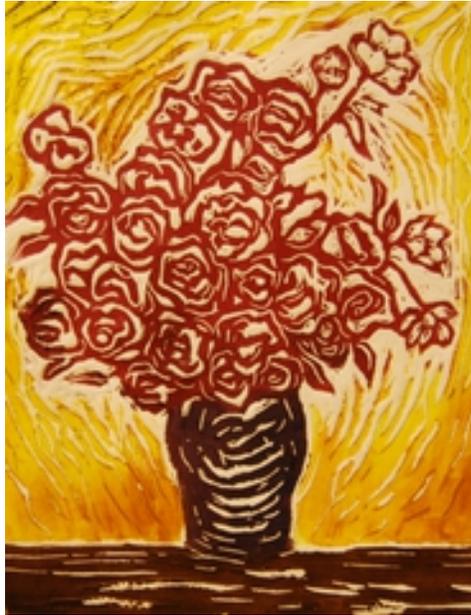
On the left is an ink and white tempera drawing on linoleum based upon the study of Van Gogh's *Still Life; Pink roses in a Vase*. The students began their drawing from direct observation in the gallery using pencil and paper cut the same size as the linoleum block. Students were asked to make notation marks to indicate the visible brush strokes of the forms and background.

Once the drawing was completed in the gallery, the students returned to the studio classroom to transfer their drawing onto the linoleum printing plate. In transferring the drawing to the plate, I chose not to require the students to reverse their drawing to allow for direct observation and comparison to the original painting while constructing their drawing in brush and India ink. White tempera paint was also used to modify and to make corrections on the ink drawing.

When the ink and tempera drawing was completed, the students used linoleum cutters to remove and cut away the open and white areas of the printing plate. They were instructed to make their cuts directional as indicated by their black lines. Cutting in this manner creates visual echoes of the black ink lines.



Above left is the finished cut linoleum plate that has the same orientation as the Van Gogh painting. The reversed image on the right is the printed image from the linoleum plate. The print will always be a reverse image of the plate. To make the printed image a closer copy to the painting's composition, the drawing would need to be reversed on the printing plate.



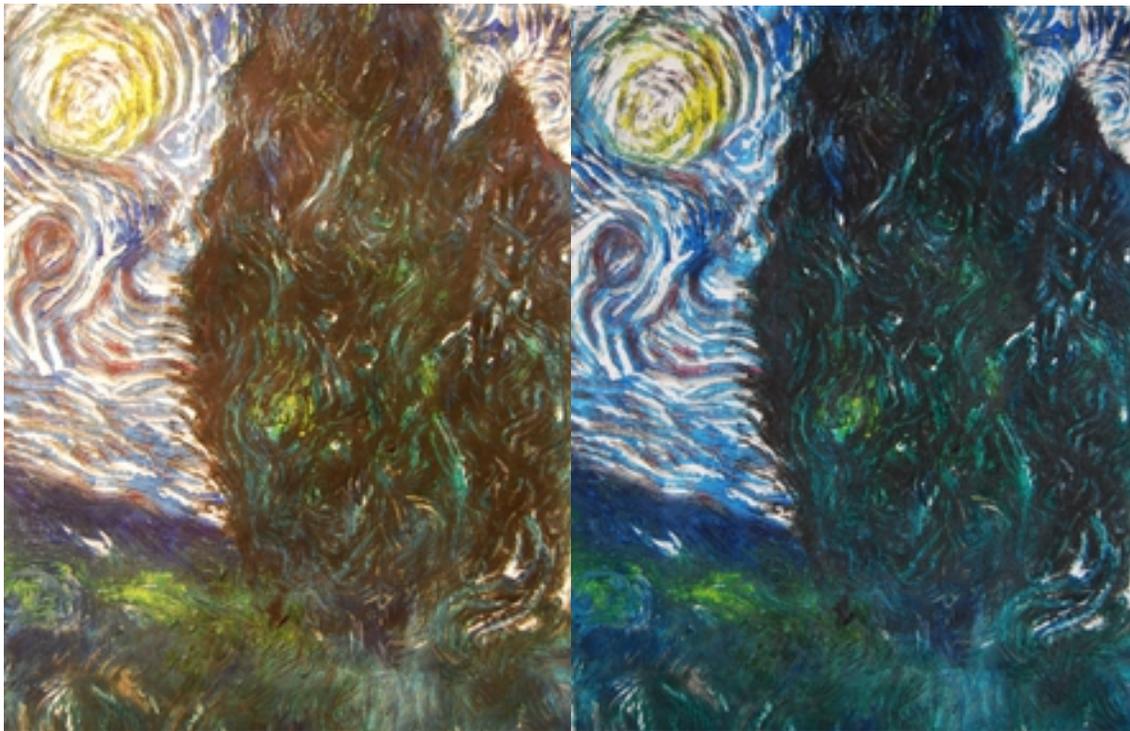
Color was added to the print on the left by using a small brayer to place water soluble oil paint on the printing plate.

In the prints below, transparent watercolor was brushed onto the printing plate and the plate was additionally inked with different colors of water soluble oil paint, using a brayer. The wet printing paper rehydrates the watercolor paint when the printing plate is run through a printing press and both watercolor paint and water soluble oil paint will print.



The next print uses Vincent Van Gogh's landscape painting *Cypresses* as the source for the printing translation assignment. To increase the rhythmic flow and pattern of the composition, I directed the student to make a multiple layered print by inking and printing two to four times on each print. Each time the linoleum plate was printed, the registration was purposefully misaligned to reinforce the rhythms and patterns of the print. The student would also change the colors with each printing so that color mixing would occur on the multi-layered print. This process created greater chance occurrences that added to the complexities of color and rhythm on the printed image.

Below are the examples of the multiple miss-registration print.



The unfortunate aspect of working in a closed system of learning is the imposed time constraints. Not all individuals work at the same tempo and so some finish early and there is insufficient time to involve them in additional meaningful and related work. There are those students who don't have sufficient time to explore the full potential of their work.

Below are some good works that could have been more thoroughly developed with an extended class schedule:

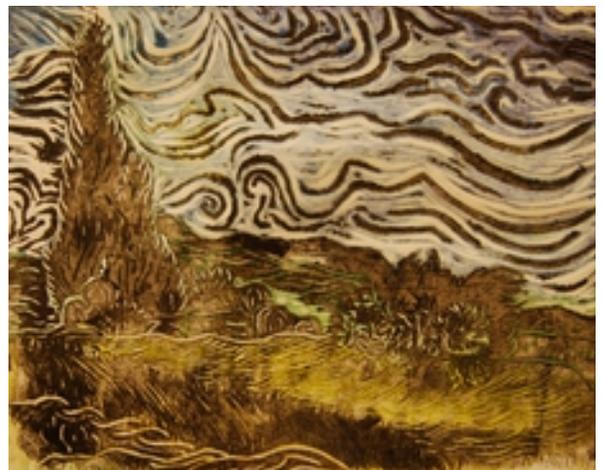


On the left is the drawing and partially cut linoleum printing block that used Van Gogh's *First Step (after Millet)* painting. The after Millet in parenthesis indicates that Van Gogh copied and translated a Jean-Francois Millet painting into his own painting style.

Below left is the first print in black ink and on the right is a multiple color print.

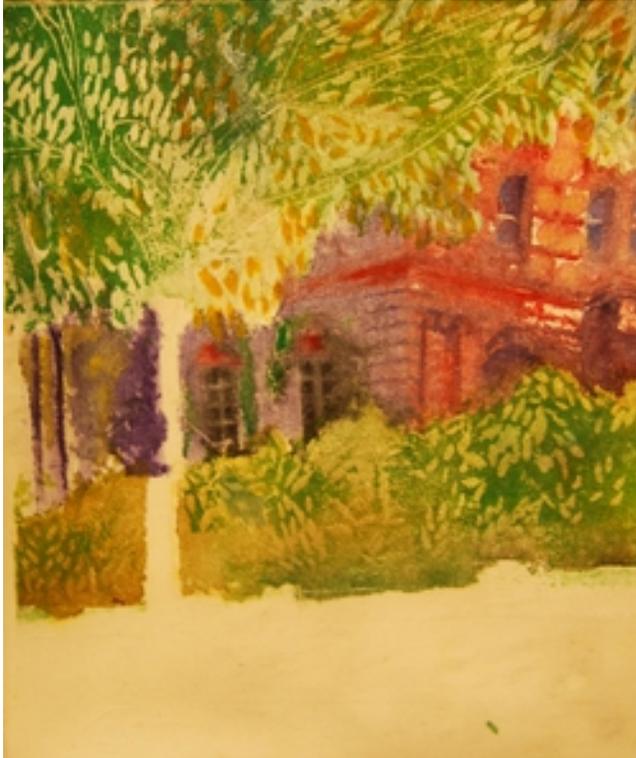


Below left is a print that used Van Gogh's painting titled *Still life; Vase with Oleanders and Book*. Below right is a print based upon Van Gogh's painting *Wheat field with Cypresses at the Haute Galline near Eygalieres*.



## Variation on the Provincetown White Line Print

The next assignment has some similarities to the previous printing assignment. The assignment is based



on the Provincetown printing technique, also known as the white line print, developed by B.J.O. Nordfeldt in 1915 at Provincetown, Massachusetts. The white line print is traditionally done on a hardwood printing block, which is often cherry wood. A line drawing is either drawn directly onto the printing block or transferred from an existing drawing. All subject matter and objects are reduced to simple outlines. Once the outlines are drawn on the wood block, they are removed with a cutting tool or an x-acto knife that cuts the drawn line into an incised groove. Most of the surface of the printing wood block remains flat and uncut. In the modified technique, I used a linoleum block printing plate, which would make the cutting of the grooved lines easier for the students. The cut lines form barriers that contain the flow of the watercolors that are used to apply the colors of the print. The watercolors are applied in successive layers by adding paint, printing, adding more paint, printing, and so on, until the color, tone, and desired intensity is achieved.



On the two examples on the left, the cut lines were flooded with watercolor to create the lines of the stones in the building. It is also possible to see the original cut line in the tree on the left on both prints that are from the same printing plate. The leaf patterns in the tree and bushes were created by layers of painted brush strokes from the printing plate and a final reduction process of cutting away the plate and overprinting with a water soluble printing ink. Watercolor may also be applied directly onto the print to make adjustments and corrections.

It was my goal to keep the production process open by combining multiple techniques that would be unfamiliar to the students. Lack of familiarity with process challenges the visually intelligent students to seek new ways to use their highly developed technical and visual skills, while the work of students of lesser skill and visual intelligence is elevated by the inherent characteristics of the printing process.

It was never the intention to print an edition, but to have the students explore creating art through the characteristics of process, and by doing so learn that creating is the productive interaction of the materials and the artist. Dictating an unfamiliar printing process disables the students from directly applying their learned skills for an immediate product forcing the students into working intuitively through the mediating printing process.

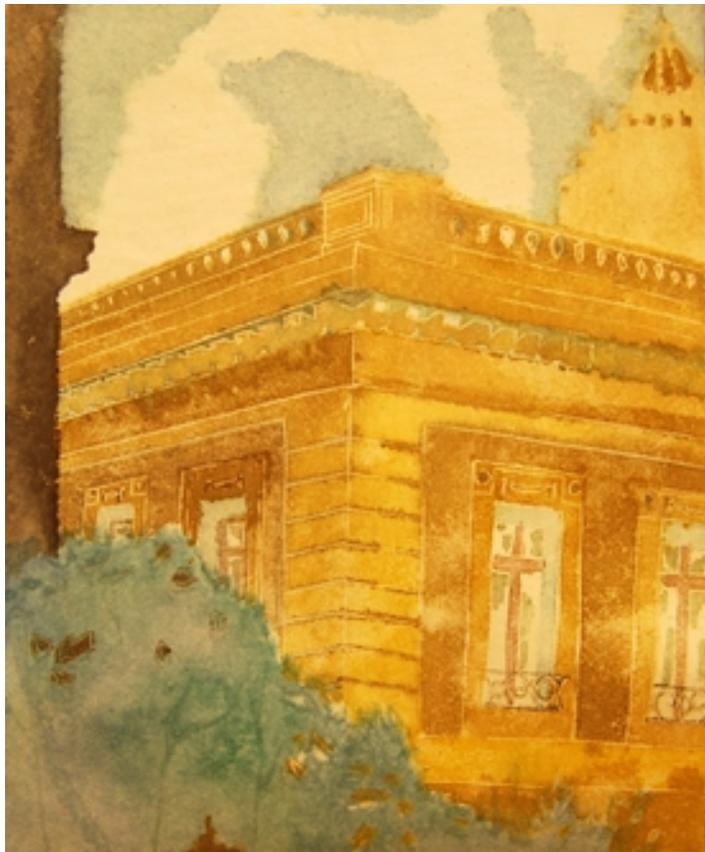
The first models for the assignment were a number of Provincetown Prints in the drawing and print gallery at the Met. Students could directly observe the interaction of watercolor painting through a printing process. The second model for the assignment was the many landscape paintings in the Nineteenth Century European Painting Gallery. In these galleries, landscape compositions were discussed, pointing out object placement, depth of field, and local and nonlocal color.

The students were then requested to go outside of the museum into Central Park. Based on their compositional studies in the museum's galleries, the students were to compose a landscape from direct observation. Once their drawings were complete, they returned to the museum class studio, transferred their drawings onto linoleum plates, and began cutting white line printing plates.

The prints above and the print to the left were done by two students who in my estimation had a higher visual intelligence than my own. They both possessed the skills that only come with the combination of visual intelligence and countless hours of disciplined practice. At the time I worked with them their work was figurative, and highly competent in drawing and painting media. At times they seemed almost a walking camera, intuitively producing photographic images. They have the ability to reproduce what they see yet do not always have a complete understanding of the forms and structures that they see and produce.

My job as an instructor with these students was to complement them by explaining what they had done correctly while adding to their considerable knowledge what they had yet to learn. The highly visually intelligent students' mistakes are minor, but often important elements for the congruent structuring of form, color, and space. Although the prints are unfinished, they do effectively display the students' practiced discipline skills and high visual intelligence. Their attributes of practiced skill and intelligence fueled their intuitive perception to navigate through an unfamiliar and complex process to create a highly competent work of art in a medium that they would not have chosen to experience on their own.

When students' technical skill is well practiced and advanced, then unknown processes of exploration become the means to new learning that builds upon existing knowledge. Students who are unpracticed and lacking in technical knowledge and skill have no learning framework upon which to build. The three prints above represent intuitive learning based on students' prior skill and knowledge.



The prints below, belonging to less skilled and practiced students, rely more heavily on the accidental characteristics inherent in the printing process. Since the project is not a part of a sequential and sustained learning program, there is not much the unpracticed students limited in skill will learn from such an isolated activity because they are not building on preexisting knowledge. What the unskilled students acquire from the class is a positive museum-based experience with a few successful prints to take home with them, which I imagine to be the objective of the museum in having project-based activities.

Below are works where the students' skill and knowledge was limited. Through their determined work and the interaction of materials and process, they created visually interesting work.





One aspect of teaching at the Met that I enjoy is encountering highly visually intelligent students who are well practiced and skilled. It gives me the opportunity to work with a type of art student I rarely encounter in my own high school art program in the Bronx. There is nothing more exhilarating for an art teacher than working with a capable and disciplined artist that either knowledgeably or intuitively understands the forms they see and has the ability to translate the three-dimensional world into the two-dimensional world of the picture plane.

Students of high visual intelligence, such as the three student artists who created the next three paintings shown below, are capable of learning through their eyes. They are able to use the museum as an informative visual resource on style, technique, and composition that can be applied to the development of their own work.

The task of the instructor with the advanced, visually intelligent students is to not interfere with their production process, giving them time to work and develop the continuity and direction of their painting. Once the style and color of the painting have been established, it is up to the instructor to react and assist the student in building a congruent painting.

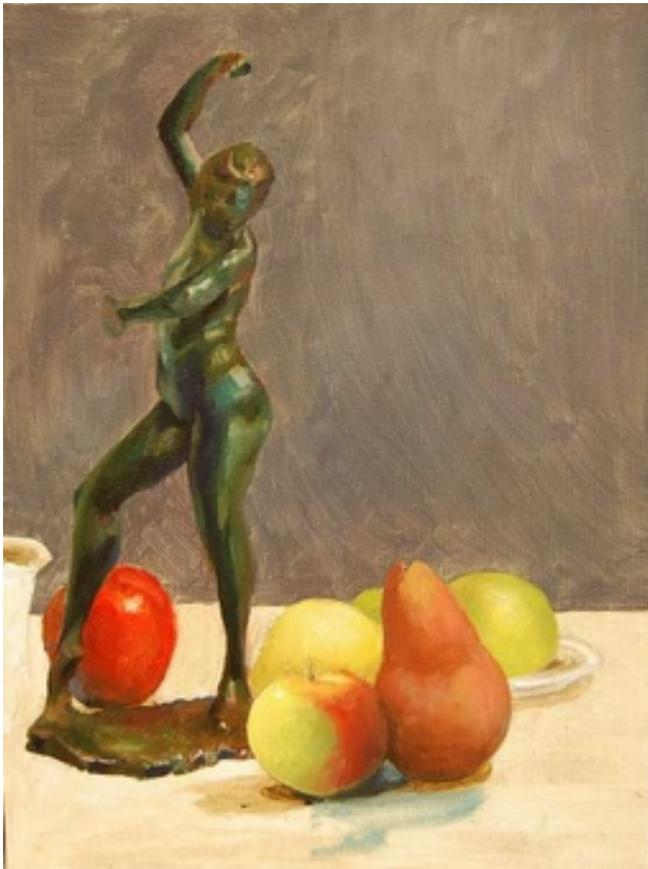
The still life set-up began with china bowls and plates, fruit, and a replica of a Degas maquette, which was a part of the museum's teaching collection. The still life setting had to be set for a 360 degree viewing, and spot lights were used to control the light source.

The class began with a gallery lecture in the Nineteenth Century European Painting Gallery, where students viewed and discussed still life paintings by various artists such as Van Gogh, Manet, Cezanne, and Gauguin. The gallery discussion was centered on composition and the use of color to construct a congruent painting.

After the gallery lecture, the students returned to the studio classroom for a demonstration in mixing a monochromatic paint scale for the painting of a preliminary underpainting. An underpainting is often a monochromatic rendering of the forms in the painting's composition. It is essentially a drawing in paint where all the compositional and form problems of a painting can be worked out more easily due to the use of only a single color value range, which makes mistakes and changes easier to manage and correct.

In this project, the students used the color burnt umber in their underpaintings. Looking closely at the painting on the left, the warm tone of the burnt umber is visible through the gray background, especially around and between the figure's legs. It is also visible on the inside of the unfinished bowl on the left, in the shadows on the tablecloth, and throughout the figure, especially on the head, the raised hand, the base stand of the sculpture, and in the fruit.

The unfinished painting above is off to a good start; however, there are some problems the student



would have needed to address to successfully complete the painting.

A common procedural mistake shared by many students is painting the subject objects first, rather than the more efficient practiced procedure of starting with the background and progressing to the foreground. The background in this painting is raw and unfinished, and background colors and tones must be established to visually aid in creating depth in the picture plane. The table surface is in a similar raw state and presents a flat shape rather than a surface that recedes into the picture plane. Generally, what I recommend for an ambiguous space is a muted color with the tone transitioning. What is needed in this painting is a transition from a dark value on the right side to a lighter value on the left side. This scheme would place the darker values of the background next to the lighter, highlighted

values of the objects on the right, and the lighter values of the background against the darker, shaded values of the objects on the left. This effect will visually push the objects in the still life forward.

The figure is very well constructed, with the planes of the figure clearly established, creating the necessary volume while establishing the directional movement of the torso and each of the limbs. The only proportion problem is the knee on the right leg, which is too high.

With so much of the painting incomplete, there can be little discussion of color, other than the red apple



behind the sculpture's left foot. The chroma is too high and the apple is not holding its assigned space; neither is it creating the depth it should in the picture plane. The red also projects forward, creating an awkward visual relationship with the sculpture's left leg and foot. The solution is to tone the red down, reducing the chroma.

The painting on the left perfectly illustrates the problems inherent in working with color and paint. Color is so seductively beautiful that it can blind student artists from seeing the mistakes and problems in their paintings. In this painting, it is obvious the student became mesmerized by the painterly application of color. The concern was with style over form, which sometimes leads to inconsistent results, project failure, and limited learning.



My immediate visual response to the painting is positive. I like the impressionist painterly brush stroke, the flowing figure, and the fiery hot colors. However, the visual problems quickly emerge. The figure, though lyrical and flowing, and more representative of an Alberto Giacometti sculpture than a Degas maquette, is a proportional nightmare. The shoulders are visually connected to each other, the upper torso is broken, and the lower torso and hips are too long. There is no volume to the legs, and the left leg is awkwardly joined at the hip. Once the poorly constructed form is noticed, the protective veil of color can no longer disguise and hide the painting's flaws and weaknesses. Overall, I would classify the student of

this painting as a good painter, but one who needs to be more disciplined in learning so that, in time, informed decisions on when and how to alter form to strengthen compositional structure and congruency of painting can be made.

Color is the strength and attracts the viewer's eye to the painting on the left. Once again, after the immediate response to color has dissipated, the problems in form quickly emerge. The figure is awkwardly visually split by a diagonal form that begins with the right leg and flows up through the left extended arm. This form overlaps and is separate from the upper torso and left leg. The mistake's cause is the lack of understanding of the planes that are necessary to construct a twisting and turning figure. The background is interestingly painted, creating diagonals and triangles that are echoing and suggestive of movement, which the sculpture implies. The diagonal of the table nicely echoes the diagonal of the right arm, and the fruits create a myriad of directional diagonals that operate in concert with the sculpture. Aside from the figure, the most glaring inconsistency is the heavy painterly texture of the paint. Because the paint is being applied heavily in the fruits and bowls, the colors have become muddled, rendering the fruit and bowls deformed and, in the immediate foreground, rotting. Controlling thick impasto paint is a challenge, and one must understand both color and form to be successful at its application. The student needs more practiced handling of paint, as well as a better understanding of form, particularly the knowledge of planes. Since this student wants to be painterly with a visible brush stroke, I would recommend the study of the works of Van Gogh and Cezanne in the 19<sup>th</sup> Century galleries in the museum's collections to learn how to build form with a brush and how to reconcile the foreground objects to the background space.

I would consider all three of the above paintings to be good paintings, but I also selected them because they all contain the most common mistakes of the student artist. Each of these student artists has a high visual intelligence and is capable of learning visually, but what they need is knowledge to better inform their visual learning process. Intuition has its limitations, and what they need is to read and gain technical knowledge in color, form, composition, painting formulas, and techniques. They are being too passive in their education, expecting to be taught by ordinary individuals, whereas if they had the technical knowledge, they could be using their eyes effectively to learn from the greatest practitioners in the visual arts via the museum's collections.

### **Combining Museum Classes with Art Academy Assignments**

While I was a contractual high school studio art instructor at the Metropolitan Museum of Art, I required my Art Academy students to participate in my museum classes. It was the ideal way to insure that they spent time looking at art in a structured learning class environment. Another advantage to having my Art Academy students participate in museum classes was that it eliminated the time constraints of working within the museum's class schedule.

Below are two seniors' Art Academy assignments that began in a portraiture painting class at the Met and were completed at school after the Met class had ended. Art Academy seniors are required to make a religious work of art to be placed in the school's permanent collection to mark their participation in the school and the Art Academy program.



The process of making a painting for the school's permanent collection begins with the student's selection of a painting from the Metropolitan Museum of Art's permanent collection. The work is photographed and printed so the students can begin to examine the work's patterns and compositional structure. The students explore the composition by drawing directly on the photocopy to discover how the Golden Mean formula was applied and what types of geometrical forms were used in the compositional substructure of the painting. The composition part of the assignment is given only to my Art Academy students, in advance of the museum class. When other museum students take notice and have an interest in the structural drawings of the Art Academy students, I discuss and show them how to use the Golden Mean formula and how to explore for geometric compositional structures.

One student chose the Carlo Crivelli *Madonna and Child* painting to use as the source material for the basis of her senior project. A decision was made to eliminate the background so the student could focus only on the figure study of the Madonna and Christ Child. When the background was eliminated, the composition of the two figures was slightly altered to create a more unified geometrical structure centered on the vertical Golden Mean line.

Pictured on the left is the Madonna and Christ child drawn in the compositional substructure. The vertical golden mean line extends through the center of both heads while the horizontal Golden Mean line intersects the vertical Golden Mean line in the center and right between the eyes of the Christ child, making the child the focal point of the painting. To strengthen the child as the focal point, the drapery lines of the Madonna's shoulder all converge on the intersection of the vertical and horizontal Golden Mean, drawing the viewer's focus to the child. Both figures create upward pointing triangles to reinforce the spiritual theme of the painting. The student has also mapped out the structural planes of the face and hands to insure accuracy and volume of form.

There can be no compositional learning if the students simply grid the photocopy of the painting and then use corresponding grid lines for their drawing and painting. It is the exploration using the geometric shapes and the use of the Golden Mean that teaches the students how to compose rather than senselessly copy a work of art. The compositional formula or substructure teaches the students to think visually beyond the recognizable objects and subjects of drawings and paintings. The students begin to think of their work of art as a whole compositional unit, rather than individual subject images.

At this point the student is no longer blindly copying, but is creating a painting based on a painting from the museum's collection. She was free to develop her painting based on the abilities and limitations of her own skill.

On the right is the finished painting. In addition to composition, the student acquired practical experience in the techniques of oil painting and the use of gold leaf. The painting is now on display as part of the school's permanent collection.

Another student selected Luca Signorelli's Madonna and child painting as the basis for her senior religious project. The painting was photographed and photocopied to allow the student to explore the painting's compositional structure, searching for geometrical shapes and the subject's focal point through the use of the Golden Mean formula.

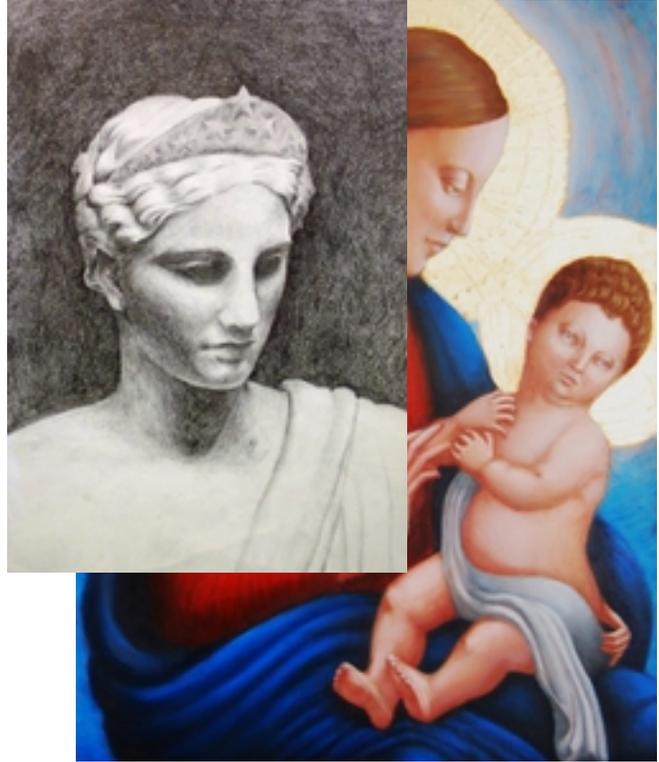
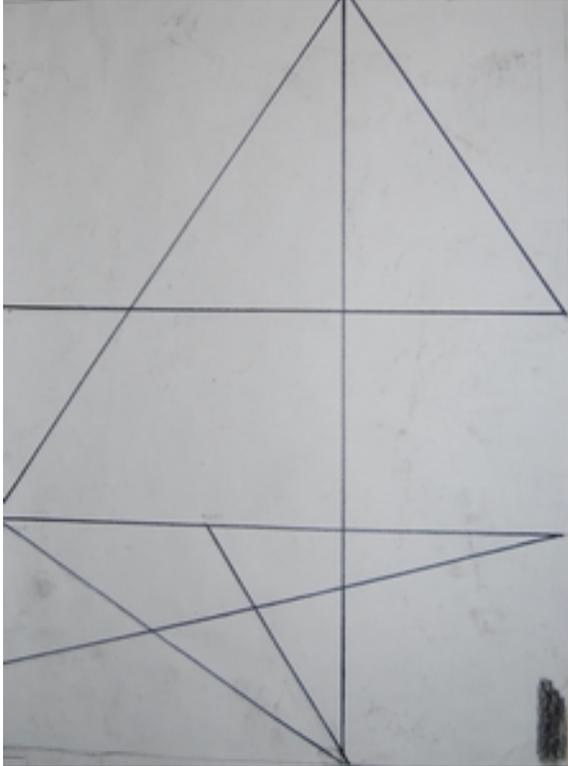
In this composition, the vertical and horizontal lines of the Golden Mean formula intersect at the point of the interaction of the Madonna and child's hands, suggesting that the subject of the painting is the interaction of the mother and child, or the interaction of the earthly and spiritual bond. The subject is further emphasized by the triangle made by the palm of the Madonna's hand and the child's arm, being similar in shape to the dominant triangle constructed by the compositional placement of the Madonna and Child. Also visible in the diagrammed drawing is how the arms and feet angle to the Golden Mean lines at the outer edges of the composition. At this point, it is easy to question whether there are triangles, since they do not appear to be clearly defined by a solid object. However, according to Daniel Dennett's book *Consciousness Explained*, once a pattern is started, the mind will finish it and oftentimes it is at the subconscious level. To me this suggests that the completion of the composition is in its subliminal substructure that defines the location of



the objects. Without this substructure in the work of art, the compositions would seem incomplete. This is the basis for why I require the students study composition and consider the whole and not just the parts (subject/objects).

Once again a decision had been made to eliminate the background of the painting so the student can focus on the drawing and painting of the figures. Pictured on the left are the figures drawn within the compositional substructure for the painting. The purpose of the assignment is not to learn how to copy but rather to learn how to construct a composition and to have the compositional structure be a significant part of the subject narrative. Below left shows how the student began the drawing for her painting. The compositional structure was drawn first and then the figures were drawn over the compositional structure. Pictured below right is the finished painting.





### **Sculpture: Drawing the Human Form**

What is missing in most high school art programs is figure drawing. In drawing classes, the importance of measurements and proportions are stressed, but it is difficult for students to understand just how critical measuring is when drawing simple forms and multi-object still life drawings. Students think of drawing as a talent and not a learned skill, and so they draw by visually approximating the size and shape relationships of the objects they are drawing. The unmeasured drawing always contains many mistakes and it is especially noticeable when drawing the human form.

My first words of advice to all students are Vincent Van Gogh's definition of drawing: "Drawing is



careful and precise measuring." I inform the students that unless they are willing to learn how to measure correctly, there is nothing I can do for them. As an instructor, it is my responsibility to teach the students the measurement system, and it is the students' responsibility to employ the system. There can be no progress unless the students have the discipline to take the time necessary to measure the human form correctly and the willingness to recheck and re-measure

visible errors in their drawings. What most students do not know is that it takes time to construct a drawing correctly. Those students who want an instant drawing and forgo measuring never learn and repeat the same mistakes over and over again.

The system for measuring with a sighting stick was covered in Chapter 6, with the geometric still life drawing assignment. More elaborate examples of measuring and academic drawing techniques of still life and figure drawings can be found in Juliette Aristides' book and DVD *Lessons in Classical Drawing* and the DVDs that are available at the [5pencilmethod.com](http://5pencilmethod.com) website. There were also more complex measuring examples in Chapter 8.

The ability to draw the human form is often considered the benchmark of artistic competency and is considered to be among the most difficult subjects to draw and paint. The advantages of teaching figure drawing and portraiture at the museum is that there are a variety of stationary, nonmoving, idealized human figures in the form of sculptures in a variety of poses, ranging from nude to fully clothed. In the Metropolitan Museum of Art there is also a drawing gallery that



always has examples of drawings illustrating what the students must see to be able to translate the three-dimensional form into a two-dimensional format successfully.

In addition to the trip to the drawing gallery, I distribute handouts to the students that illustrate the planes of the figure and the head to use as a visual aid while looking at the sculpture. I also photograph and print the sculpture from each student's view point, and on the printed copy, the students draw the planes of the figure and use the photograph as a secondary system for measuring. It is sometimes too difficult for students to translate the way we see three-dimensional objects into the artist's two-dimensional visual notation system, so it often helps to look at the sculpture through a photograph until they become more skilled at visual translation.



The figure and portrait drawings from sculpture were done by my Art Academy students while attending museum classes.

## Summary

One of the difficulties of teaching at the Met is the diverse range in knowledge and skill possessed by students enrolled in classes. Skilled and practiced artists with high visual intelligence co-exist alongside untrained novices with very low visual intelligence. Another difficulty is the finite amount of time allotted to accomplish the project task, given such diverse ranges of skill within the classes and the students' availability to participate in all scheduled classes. Timing of the project's class length becomes problematic and unpredictable.

The view I hold of art education is that it is a disciplined course of study. In a drop-in environment such as a museum studio art class, there are limited options to implement a disciplined classroom structure. Class production can be determined by the productive and unproductive interactions of students.

Another problematic issue I have experienced in museum education is that the students compartmentalize learning into two separate categories: looking in the galleries and activities in the studio. Our standard education system has inadvertently trained students to think that working in the studio classroom is learning. Consequently, direct observation of actual artworks by established artists are not connected to their learning process. The students' perception of their art training is confused and dysfunctional.

The learning process they must come to realize is that seeing in the galleries is learning and working in the studio is the production of their learning from their visual studies in the galleries. This reversal of the visual learning process is reminiscent of my experiences as a student participating in classes at the Des Moines Art Center. During the four years I attended classes, not once was the museum's collection used as a learning resource. When students don't learn from the galleries of great art works, their production in the studio will be unproductive. They are engaged in the production of their own limited knowledge and so they are producing a video loop of their own mistakes over and over again. As an instructor with limited management authority in the museum studio structure, it was impossible to advance some students beyond their non-learning video loop of non-thinking production.

However, there were also production machines that would spin off as much work as they could, going to the galleries and looking when instructed to find a solution to specific problems encountered in their studio work, and exploring new combinations of materials and color. It was these highly motivated and visually intelligent learning students attending my classes that kept me teaching at the Met for thirteen years.