



Visual techniques - lecture

Systems Integration and Architecture 1 (University of La Salette)



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ADVANCE PRESENTATION TECHNIQUES

1.1 MARKERS

Drawing with markers offers almost instant gratification—markers are simple to use, require little prep time and dry quickly. Because the marking material is fluid, the smooth marks are unlike those made by dry drawing mediums.

Drawing with markers will offer you a range of brilliant color that surely will excite your creativity. They're ideal for creating loose lines, calligraphic designs, and precise technical illustrations.

One drawback to using them is that it's not easy to correct mistakes. To work successfully, you need a bit of confidence and some drawing experience.

The many different types of markers go by various names, such as art markers, marker pens, artist pens, brush pens and paint markers. Art pens and markers come in every color you can imagine and can be purchased in sets to save money. They vary in size and tip shape and are further distinguished by their colorant, which can be dye, ink or paint, and alcohol-, water- or solvent-based.



"I Live Here" (Copic markers and Pigma Micron pen, 6×9.5)

DIFFERENT TYPES OF MARKERS

When learning how to draw with markers, it's important to consider the different types. Three common kinds of markers are listed below: alcohol-based, water-based and solvent-based. Knowing the different qualities of each will help you choose which markers are best for your drawing needs.

Alcohol-Based

These markers are fast-drying and waterproof. They don't smell as strong as solvent-based brands, but they can still cause eye or respiratory irritation. Make sure your workspace is well ventilated. Because alcohol-based markers dry quickly, the paper you work on doesn't stay wet and is less likely to be torn as you layer colors. Popular brands among artists and designers include Prismacolor, Letraset Tria and Copic, whose pens are refillable. Sharpies, the all-purpose permanent markers, are also alcohol-based.



Water-Based



Some have brush tips made of foam or dense fiber. Others are chisel-shaped or have nylon brush tips that distribute the color. Water-based paint markers, such as Sakura Permapaque markers, are opaque, generally quick-drying and water-resistant when dry. Most brush pens and markers are water-based and have flexible nylon or foam tips shaped like traditional brushes. They make marks like small round bristle brushes and have a similar feel in the hand.

Because they are odorless and safe to use, water-based markers are the best choice for children. But adults can obviously make good use of them, too.



Many brush markers are double ended, with a fine point on one end and a wider tip on the other. Brush pens and markers often use acid-free ink, which is ideal for calligraphic work, art journals and book arts. Try Staedtler Mars graphic 3000 Duo, Pitt Artist Pens, Pentel Brush Pens or Marvy Brush Markers.

Solvent-Based



This type of marker creates brilliant color and is waterproof and long-lasting. A popular solvent-based brand for design and drawing is Chartpak Ad markers, whose solvent is xylene.

The solvents in markers can be xylene, methyl isobutyl ketone or butyl acetate, all of which can cause dizziness, headaches and nausea. Markers with these solvents should be used only in studios with excellent ventilation. Solvent-based markers aren't suitable for children. Many paint markers are solvent-based and opaque. You can use paint markers on porous and nonporous surfaces. They're generally waterproof, but not necessarily permanent.

Paint markers are most useful for craft or decorative projects and signage. Shake them to mix the paint inside, and ensure your workspace has proper ventilation. This marker type, which come in many colors including metallics, can be blended with Turpenoid or other solvents.



USING DIP PENS



Hand-Carved Bamboo Pen

Long before markers hit art store shelves, artists drew with pen and ink. Dip pens have been made from reeds or quills since ancient times. The simplest is a Japanese hand-carved bamboo pen that has its shaft shaped into a tip that can be dipped into a pot of ink.

A bit more refined is a pen with an interchangeable metal nib held in a simple wooden or plastic handle. Drawing nibs are pointed metal tips that are somewhat flexible so the lines produced are thicker or thinner depending on the pressure of the hand.

Similar nibs are also available in pens that hold a reservoir of ink inside the handle, like a fountain pen, obviating the need to dip the pen into a pot of ink. The reservoir can be a disposable or refillable cartridge.

Refillable Mechanical Pen

Mechanical pens have a metal, needle-like tip instead of a nib and produce a controlled line of predetermined width from 0.13 to 1.4 millimeters. Mechanical pens can be used for precise drafting and technical work or for sketching, although the unchanging width can become monotonous.

Black India ink is pigment-based ink that is permanent, lightfast and waterproof. Colored inks are acrylic- or shellac-based and can be thinned with water. Some colored inks aren't lightfast and shouldn't be exposed to direct sunlight for long periods.

3 WAYS TO IMPROVE YOUR DRAWINGS

Now that we have covered the basics, here are three easy tips for drawing with markers and ink.

Line and wash: First do a line drawing in pen or ink. When it's dry, add light washes with markers, watercolor or brush and ink. If the initial drawing is done in water-soluble ink, the wash will soften the ink lines, creating an interesting fusion of line and tone.

Layering: Markers lend themselves perfectly to blending and layering color. Start with the lightest colors, building up rich layers of color and texture. Colorless blenders, such as those from Prismacolor and Chartpak, can be used to soften edges and combine colors.

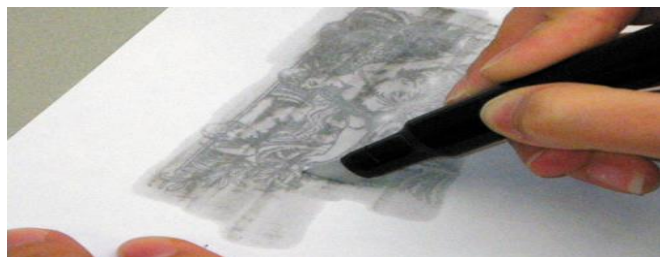
Combining media: Watercolor brush markers can be blended and lightened with a brush dipped in water or can be used in combination with traditional watercolor techniques.

TRY TRANSFERRING AN IMAGE

Another great drawing technique is to use solvent-based colorless blenders to transfer laser-printed images to paper. Run a wide tip colorless blender over the area of the image you want to transfer.



Flip the paper over onto the surface you want to mark, and run the blender over the image area on the back side.





The printed image, to which you can add color, will appear in reverse on the surface.

FAQs FOR DRAWING WITH MARKERS AND INK

Whether you're new to drawing or just new to drawing with markers and ink, here are the answers to commonly asked questions.

Are art markers permanent and lightfast?

Art markers were originally developed for design and illustration work that only had to retain its color long enough for the artist to make a presentation or reproduce the work for printing. The dyes weren't lightfast and would fade, some relatively quickly, when exposed to light.

Markers today are more permanent, but this varies by manufacturer. Check the product literature to see how permanent the marker is. And, to ensure the longevity of your art, take a picture of your work as soon as it's completed.

At this time, there are no American Society for Testing and Materials for Artists' Materials (ASTM) lightfastness or permanence testing standards for markers. If a marker is described as "permanent," it means you can't wash the marks off—not that the mark will never fade.

What are good surfaces for marker work?

Fine art papers, bristol board and illustration board are all good surfaces for marker artwork. A smooth, cold-pressed surface resists the bleeding that can occur with markers.

Bristol board is heavier than drawing paper, but lighter than illustration board. It comes in two finishes: plate (hot-pressed), which is slick and hard; and vellum (cold-pressed), which is softer and has more tooth. Illustration board has only one working surface, which comes in hot- or cold-pressed.

Several manufacturers make paper specifically for markers. This paper is bleed-proof and retains the true colors of the markers. Some examples are Canson Pro-Layout and Bienfang 360.

Can you work with multiple brands of markers at a time?

It's best to stick with one brand through a whole piece. Each marker line has a unique chemical formula, so blending brands may lead to unsatisfactory results.

Is India ink really from India?

India ink was first used in Asia during the 4th century B.C. and was made from soot and burnt bone. Colonists later introduced it to Europe. Formulas today generally use shellac.

With the right materials, techniques, and information in hand, you are well on your way to drawing with markers and ink like a pro. Be sure to share your favorite drawing materials, advice and techniques in the comments. Happy drawing, artists!

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November 1, 2021 by George Melrod

Best Markers for Adult Coloring Books – Coloring Markers Review By acrylgiessen

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Marker Drawing Techniques to Improve Your Art BY ARTEZA

An Intro to Marker Drawing Techniques by Chameleon Art Products

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Basic Alcohol-Based Marker Techniques: Drawing a Banana by Eugenia Hauss

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WEEK 3

1.2 COLORED PENCILS

Colored pencils aren't *just* for kids—they are powerful tools of creativity for people of all ages. When used correctly, you can produce lifelike drawings done in brilliant hues. But

how do you do that, exactly? Like all media, there are basic approaches you need to learn so you handle your tools accordingly. Colored pencil techniques range from basic to advanced—from simply pressing hard on the page to applying oil over your drawing.

It's important to try a variety of coloring techniques with your colored pencils. Doing so will allow you to fully explore the media and determine what you like the best; you might be surprised with what strikes your fancy. And even if you don't use an approach right away, you can keep it in mind for future projects. You never know when it might come in handy.

8 COLORED PENCIL TECHNIQUES

1.Back and Forth- This coloring technique is so basic you've undoubtedly done it before; simply move your pencil back and forth in one continuous motion on the paper until you cover the entire area.

2.Hatching -is an approach that you can use in all facets of drawing. To create it, make parallel lines on your paper. They be vertical, horizontal, or angled, just as long as they don't touch. Unlike the back and forth method, you will pick up your pencil to create each new line.



can
pencil

3.Cross Hatching: Cross hatching is the cousin to hatching, but instead of parallel lines, you form intersecting lines (hence the name). This technique is ideal for creating shading and texture. To ensure that your cross hatching will appear clean and precise, make sure you've got a sharp point on your pencil.

4.Burnishing: One of the most defining characteristics of colored pencil art is its smooth, waxy finish. To achieve this, try burnishing—apply thin layers of color with the back-and-forth technique. Continue this process until the paper has a noticeable sheen. You can also use a tortillion to help in this process.





5. Scraping: Scraping can only happen from burnishing. Once you've got a lustrous area, take an X-ACTO knife and scrape away at the parts that you want to remove. This technique will probably look scratchy, so make sure you use it in places you want to be highly textured—such as animal fur.

6. Oil or Alcohol: Rubbing alcohol or baby oil can alter the appearance of your colored pencils. With a cotton swab, soak it in either one of the materials and rub it on your drawing. The effect will smear and blend the pigment.



7. Watercolor Wash: Break out your watercolor paints for this mixed-media approach! Begin painting a layer of watercolor on your paper. Once dry, use any one of the coloring techniques with colored pencils on top of it.

8. Rubbing: Many of these approaches challenge you to create your own texture—but not rubbing. Find a tactile item like seashells or coins and place a piece of paper on top of them. Then, using your colored pencil, move it back and forth across the object. Its ridges and other bumps will show through. For rubbings, you'll want to use thinner paper; thicker paper is less likely to capture all of an object's fine details.



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7 Cool Colored Pencil Techniques to Teach Your Students Melissa Purtee

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WEEK 4

1.3 AIR-BRUSH



The airbrush was developed about 1882 by the Airbrush Manufacturing Company of Kockford, Illinois. It is an instrument roughly resembling a fountain pen, through which may be sprayed a mixture of air and paint. The air source can be either a compressor or a tank of carbonic gas.

The chief advantage of the airbrush is that rounded forms which are difficult to render by the wash method may be easily represented. Another advantage is that the paint dries almost immediately upon application. Properly applied, airbrush washes are transparent, and excellent atmospheric effects can be obtained. Airbrush is particularly suitable for the rendering of projects which are architecturally very smooth or glassy in appearance.

THE MEDIUM

The medium would be the type of color liquid material that can be sprayed with the airbrush. Typically, the medium would be paints, which could be watercolor paints, acrylic paints, oiled based paint, gouache, inks , urethane or even food coloring.

They key point here when you start airbrushing is the use the correct combination of medium for the specific surface you are going to spray onto. You can spray on anything really: wood, on skin, on paper on canvas, but you need to ensure that the medium you use is compatible with the surface.

HOW TO HOLD AIRBRUSH

This first lesson will teach you how to hold your airbrush properly. I suggest that you use some sort of inexpensive support to practice on at first (like newsprint) or even some large sketch pads. Make sure you buy large ones as you want plenty of space to practice. Once you will get the hang on it, you will be able to move on and use better quality.

As for paint, don't use craft paint but rather use airbrush ready paint like Createx airbrush paint, Golden airbrush colors or Dr ph martins airbrush paint. It will make your life easier.

Material Needed for this series of Airbrush lesson:

- A dual action airbrush
- An airbrush compressor or a CO2 tank for air source
- Airbrush paint like Iwata Comart airbrush paint, Createx paint, Dr ph martins airbrush paint or Golden airbrush colors.
- An easel if you want to practice standing up.

How to hold an airbrush

Don't be intimidated by the airbrush. If you practice the right way, you will be able to start using an airbrush in no time. It is crucial that you develop good habits from the start when you begin to use an airbrush.

First, it is important that you learn to hold the airbrush the right way. It doesn't matter if you are right-handed or left-handed.

Hold the airbrush in your hand just like a pen or a pencil, your thumb and middle finger are for support on the stem, and the index on the trigger finger form a pyramid.

It is important that your thumb is more or less parallel to the airbrush axis and not parallel to the axis of the air hose. The key thing is to be completely relax, and let the airbrush fit comfortably into your hand.

Index finger form a pyramid which bends inward



Don't let the index finger being out



Because index finger must slide with the trigger not pull it

Make sure the thumb is not parallel to the axis of the air hose



www.airbrushgeek.com

What to do with your other hand?

If you coordinated enough and manage to airbrush using only one hand, you can use the other free hand to hold stencils or masks.

If you are using and airbrush with a large bottom feed cup, you could use your other hand to hold the cup to give an extra support and help you a bit when you start to get tired.

Some people use their free hand to hold the wrist of the airbrushing hand. This will improve the stability when airbrushing

Another way to improve the stability is use your free hand to support the airbrushing hand:

How to hold your Airbrush: The support hand

Take the index finger of your free hand and place it just underneath the thumb of your airbrushing hand. Use the pinky of this supporting hand against the artwork, this will allow you to brace and move as you go. So ultimately, the airbrush is no longer floating because you now have contact with the surface. You can use your pinky to pivot and do a lot of different kind of movements.

If the air hose gets in the way, you could wrap it around your airbrush hand.

How to hold your airbrush: wrapping the hose around your arm



How to control a double action airbrush

With a double action airbrush, the airflow is controlled by pressing the airbrush trigger and the paint flow is controlled by pulling the same trigger back. The more you pull the trigger back, the bigger the paint flow is, making the spray pattern wider.

Set the air pressure on your compressor to 25 PSI.

Start by pressing down to trigger to release air, then slowly pull the trigger back to release the paint.

IMPORTANT: keep pressing the trigger (releasing air) until you cut off the paint release by moving the trigger back to the starting point. This will prevent your airbrush from clogging by leaving paint inside the needle.

DOUBLE ACTION AIRBRUSH

With a Dual Action Airbrush, press down for air and pull back for paint



www.airbrushgeek.com

Also, don't try to control the air pressure by moving your index finger up and down on the trigger. Remember that your air pressure is set to around 25 PSI on your compressor.

Proper sequence of action when double actioning:

- 1 Air on** (*Press the trigger down and keep it down up to sequence number 6*)
- 2 Start moving** (Always keep moving the airbrush)
- 3 Paint on** (*pull the trigger backwards and keep moving*)
- 4 paint off** (*push the trigger forward, still keep moving*)
- 5 move away** (*move airbrush away from the artwork*)
- 6 air off** (*trigger up*)

AIRBRUSH PRACTICING

It is important to practice, even if you are an experienced airbrush artist. Before going ahead with your piece of artwork, it is a good idea to warm up a bit and perform some basic airbrush exercises.

If you keep practicing over and over again some basic airbrushing exercises, you will notice that they will become second nature over time and you will be able to do them without thinking.

Airbrushing TIPS:

There are four different elements that you need to consider when practicing your strokes :

The distance from the tip of the airbrush to your artwork: the further away you are, the more diffused and lighter your spray pattern will be. The closer you are, the thinner the lines will be and the less paint volume you will need.

The speed at which you are moving across your work. The slower you work, the more concentrated the paint will be.

The amount of paint coming out of the airbrush. The more you pull the trigger, the more paint is coming out.

The Air pressure use to spray the paint

PRACTICES LINES

Use the proper sequence of action to draw a precise line. Open the air, and go slowly from one side of the sheet to the other, gently pull the trigger and gradually increase the flow of paint. Briefly fix the position of the trigger keeping the line thickness and finally slowly reduced the paint flow of the line fading it out until there is no line. Close the air and once. Do it one more time: open the air pull the trigger slowly, fix it return it back and close the air.



Open the air, pull the trigger slowly, fix it, return it back and close the air.

At first, you might draw lines that look more like electrocardiogram than straight lines. This is perfectly normal because you are not used to work free hand at slow speed. With a bit of practice, this discomfort will pass and your muscles will get used to it, the arm will stop shaking. The lines will be smoother and smoother as you go.

It is important that you train yourself to work at slow speed, especially if your lines turned out jagged. Train your trembling hands and suppress the temptation to draw at a faster speed until you manage to draw straight lines.

What you need is stable control when you use your airbrush, so only increase the speed when you know how to control the airbrush.

HOW TO AIRBRUSH DOTS



In this Airbrush Lesson, we are going to see how to airbrush dots and lines. Those are some of the fundamentals you need to learn to get comfortable using an airbrush. Practicing those following exercise repeatedly will help you get the coordination you need when working with an airbrush. You will need concentration and a good bit of patience, but I can guarantee you that the work you put in those exercises will pay off eventually.

Airbrushing Dots:

Airbrushing TIPS:

The distance from the tip of the airbrush to the paper: the further away you are, the more diffused and lighter your spray pattern will be. The closer you are, the thinner the lines will be and the less paint volume you will need.

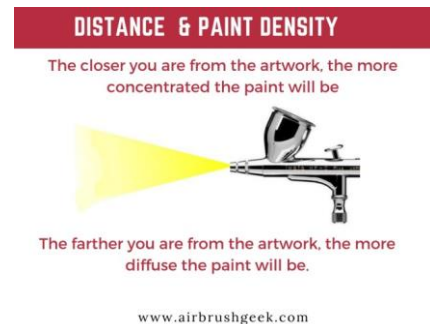
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The amount of paint coming out of the airbrush. The more you pull the trigger, the more paint is coming out.

The Air pressure use to spray the paint

Distance & Paint density

The spray of an airbrush has a cone shape. When airbrushing a constant level of paint, the distance you hold the nozzle of the airbrush from the artwork will have an impact on the density of the paint. The closer you are from the artwork, the more concentrated the paint will be. On the contrary, the farther you are from the artwork, the more diffuse the paint will be.



Practicing the Dots

The dots is one of the basic exercise that you need to do in order improve the way you control your airbrush.

The distance between you sheet and the nozzle should be between 1 or 2 inches. You can use you free hand as indicated in the how to hold airbrush lesson to support your airbrushing hand. That way, it will be easier to keep the distance the same all the time. Try to target exactly the point where the lines are crossing each other's.

Run a line of dots from left to right, and then from right to left. Always keep the dots consistency in size and density. You can, every 2 lines, increase the size of the dots, but always keep the dots size the same for the entire line. To do so, just increase the distance a little bit. Remember that the spray pattern will become more diffuse and lighter. You can compensate by spraying a bit longer.



This is a very good exercise for your hand-eye coordination. You will see how good you are at aiming a specific target. Print several of the Airbrush Exercise 1 practice sheet and practice, practice, over and over again.

Set the air pressure on your compressor to 25 PSI.

Start by pressing down to trigger to release air, then slowly pull the trigger back to release the paint.

REMEMBER: Keep the air on! keep pressing the trigger to release the air until you cut of the paint release by moving the trigger back to the starting point. Work slowly and to avoid being hesitant.

AIRBRUSHING FINELINES

Experience & Skills

The more you practice the more you will build confidence and improve the control you have over the airbrush trigger. This is true for beginner airbrush artist but also for experienced artists. It is always recommended to warm up and practice few strokes before starting a new project. An experienced airbrush artist can airbrush fine lines with any airbrush really. Using a quality tool will just make the task a bit easier.

Distance from the artwork

To airbrush fine lines, the airbrush needs to be very close to the surface you are painting. Sometimes you need to be just few mm from the surface. The farther away you are from your project, wider the line will be.



Broad spray from distance

Speed

The trick here is not to be hesitant. Keep moving, slowly, but **never stop**. Try experiment and see how the speed affect your lines.

Angle

It is best when to hold your airbrush perpendicularly to the surface.

Needle\nozzle size

Even though skills in my opinion has the biggest impact on your ability to airbrush fine lines, the use of a quality and suitable airbrush would help producing fine lines. Smaller nozzles size reduce over spray. This means that there is less “fuzzy” spray and therefore finer lines. But the nozzle size does not dictate the thinness of the line, it just makes it easier to accomplish.

Properly thinned paint

It is important to get the right paint texture and viscosity. Your paint should have the consistency of milk. For this exercise I would recommend you use paint that are ready-made for airbrushing like Iwata Comart airbrush paint, Createx paint, Dr ph martins airbrush paint or Golden airbrush colors. If using an airbrush with a very thin needle like the Iwata Custom Micron, you might need to thin the paint a bit to get a finer line.

Clogging

Clogging happens when a small quantity of paint dries at the needle tip. It will build up and eventually clog the airbrush. When you notice dry tip, just pinch the dry paint off the needle and keep going. You can remove the needle cap (end cap to protect the needle) of your airbrush to expose the needle so that you can remove the dry paint easily. It is also allow you to get nice and close and do fine details. Just be careful not to damage the needle or prick yourself with the tip.

Needle condition

If your needle is bent for instance, this will prevent you to airbrush fine lines.

Air pressure

To achieve fine lines, you need to airbrush at a consistent low pressure. Try to set up your compressor at approx 20 PSI and see how it goes. If you are using an airbrush like the Iwata Custom Micron with a 0.23 mm needle, you would be able to drop the pressure and thin the paint a bit more than if using an airbrush like the Iwata HP-CS with a 0.35 mm needle. If you find that the paint is splattering, just increase the pressure a bit. With the experience you will be able to find the right balance.

PROPER SEQUENCE OF ACTION WHEN USING A DUAL ACTION AIRBRUSH FOR FINE LINES:

1. Air on

Hold your airbrush about 1/2 inches from the surface. You can use your free hand as a guide or a spacer. Press the trigger down and keep it down up to sequence number 6



2. Start moving

In order to be able to airbrush thin lines you will have start moving the airbrush before you start pulling the trigger for paint. Give yourselves a run up of about 2 inches and **always keep moving the airbrush**. By doing so you will avoid one of the most common mistake for a beginner: Dog bones.

Airbrushing dog bones

You don't want to wait for the paint to come out and move, then stop. keep moving all the time



3. Paint on

Once you go past the first vertical blue line, pull the trigger backwards to release the paint and keep moving your hand to the right.

4. paint off

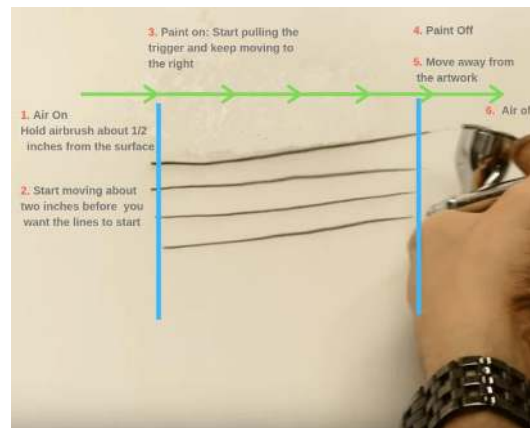
Once you reach the second vertical blue line, push the trigger forward to stop the paint, still keep moving away from the artwork.

5. move away

Move airbrush away from the artwork

6. air off

Now you can stop the air by moving the trigger up



PRACTICING YOUR SHADING SKILLS

In this airbrush lesson, we will cover shading and rendering a sphere putting to use the shading skills you learned in the lesson. This is another one of those airbrushing basic skills you'll need to have down, so it's second nature to become proficient with your airbrush.

What you will need to complete this airbrush lesson:

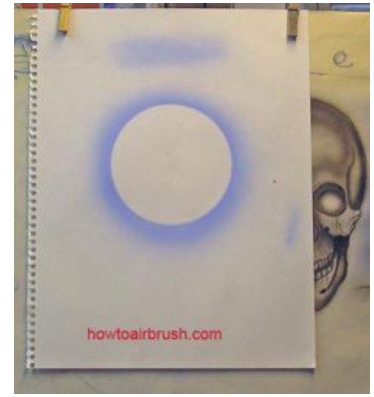
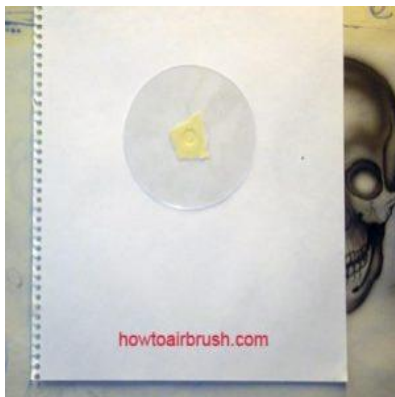
- double action airbrush,
- airbrush ready colors,
- round template,
- paper,
- easel.

Just used a round piece of plastic as a template feel free to use anything round you have on hand. With airbrush ready paints (Golden Airbrush Colors, Com-Art) and using a gravity feed airbrush 10 to 20 PSI should work fine for this lesson.

Step #1) Secure your round template to your painting surface, paper in this case. This is accomplished much easier standing up with your paper mounted on an easel versus setting down.

Step #2) With the color you've chosen to use, airbrush a nice even circle around your template. Notice off to the right where I've tested my airbrush by spraying some color before start to work on the good portion of this painting. It's always a good idea to test your airbrush to ensure it's working correctly before applying color to your project. Also notice I follow the contour of the round template and did not apply color by airbrushing across the template.

Step #3) Continue to apply color until you have built up a nice even dark tone around the template.



Step #4) Pull the template off your paper and your painting should look as pictured above.

Step #5) Continue to build your colors up keeping in mind the direction your light source is coming from and following the contour of the sphere.

Step #6) To help control over spray keep your airbrush directed inward, into your sphere as pictured above.

Step #7) Build your color up slowly until you are happy with your results. Pictured above is my completed sphere.



USING DAGGER STROKES

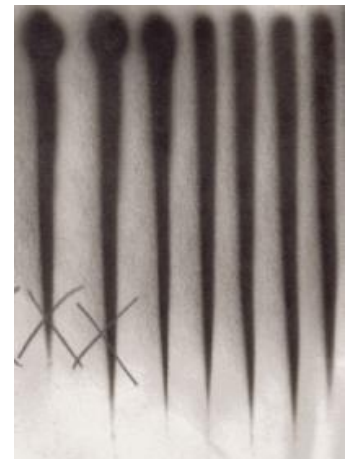
The dagger or rat tail stroke is a very important technique to master in helping you reach your goal of controlling your airbrush so paint goes where you want, when you want and with the desired effect. Written by Don Johnson.

How to Practice Dagger Stroke

You'll find the dagger stroke to be a very useful skill, rendering hair for example or in lettering or the palm tree we are going to airbrush below.

The dagger stroke goes from wide to a very thin point. At the widest part of this stroke, you want to have your airbrush back away from the surface and as you travel down the paper, move your airbrush closer while reducing the amount of color you are applying.

This is done with your whole arm and upper body not just your wrist, keep your wrist locked. Dagger strokes should look like the 4 on the right below and not like those on the left. Once you have mastered the dagger stroke in a downward motion practice them going right to left and then left to right.



How to Create Palm Tree using Dagger Strokes

In this airbrush lesson, we are going to render a palm tree using the dagger strokes.

You will need:

- pad of newsprint,
- double action airbrush,
- compressor and
- color of your choice (black is what I use here).

To start we will render the two palm trees. In the middle of your paper put a dagger stroke going from fat on the bottom to thin at the top. Make the stroke 4 or 5 inches long.



Now to the left of the first dagger stroke let's put another one. These will serve as our palm tree trunks

At the top of each of those dagger strokes add small dagger strokes going both right and left of the palm tree trunk.

Now at the bottom of the palm tree put a dagger stroke going from fat at the base of the tree to thin away from the tree. This will serve as our ground or top of our Island. Do the same going to the left.



We will add small dagger strokes going from fat at ground level to thin in the sky. These of course will serve as our grass on the island. You might want to add a few mounds of grass else where on your island as I'm doing above.

We can add our water line where the waves will be breaking on the beach. With the water line in place we can now add some waves by using big fuzzy lines going across the page. Above add a shadow for your trees going down the island and out into the water.

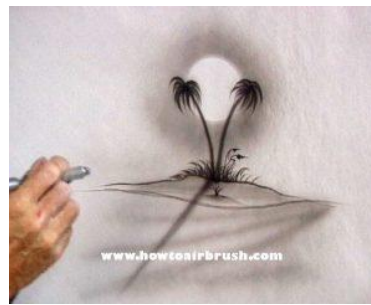


To render a sun or moon which ever you prefer to call yours we will use the top from a can of spray paint.

Hold the can top in between the two-palm trees add a little color all the way around the can top.

Pull the can top off and your painting should now look like mine above or better.

Now within your sun or moon using small dagger strokes add some birds. Start at the center fat and go out thin on the right side. Come back to the middle and do the same now going left. Add a little curve to the birds wings makes it look more like a bird in the distance.



And there you have it your first completed painting in less than 5 minutes. Please continue to play around with this lesson adding different colors more trees maybe even a boat. I hope you enjoyed this. It's

accomplishing simple little paintings like this that will give you the confidence to move on and try more complicated paintings.



PRACTICING AIRBRUSH SKILLS

This lesson will be another practice painting where you'll need to use all airbrushing skills that we learned in the first four lessons; we'll also make our own stencils.

Here in this airbrush lesson I'm again going to keep it very simple and fully expect you to outshine me here with your finished painting. I will show you the very basics of this simple painting, it's up to you to take it a step further by adding different colors etc.

Airbrush Supplies Required:

Once again we will be using news print as we did in lesson one and the color black. Please remember to use good airbrush ready paints like DR PH Martins or Golden Airbrush colors, Createx Illustration Paint. For this lesson you'll also need a piece of thin cardboard and the top off a rattle can of paint.

Step 1– Taking our piece of cardboard, cut the outline or rolling hills or mountains. Do so using the bottom one third of the cardboard leaving two thirds above the rolling hills, mountains. This gets more jagged mountain peaks you can also tear the card board as opposed to using scissors like I'm doing above.



Step 2 – Now take your home-made free hand shield and hold it against the newsprint about in the middle of the page.

Step 3 – Apply a thin layer of color spraying half on the free hand shield and half on the newsprint. Bring your rolling hills, mountains down below the cardboard defining one hill, mountain being in front of the others.



Step 4 – Moving the free hand shield up the page place some hills, mountains behind the your first row of hills, mountains you just created. Just a light mist of color no need to apply a bunch of color rendering a real hard outline here.

Step 5 – Now with two rows of hills or mountains we will go in to further define the shapes using very thin lines to out the hills or mountains.

Step 6 – Starting with the hill, mountain that will be in the back ground of your painting we will add some shading to help create the look of depth to our painting.



Step 7 – While adding this shading please keep in mind which direction your light source (the moon or sun) will be affecting the hills, mountains from. In this case the sun or moon will be coming up behind them

Step 8 – Continue to define the hills, mountains by applying nice even shading creating depth in your painting. Nice even tone to the color, no hard lines at this point.



Step 9 – To control over spray keep your airbrush directed down into the hills, mountains avoiding a lot of over spray up into the sky area. Make sure you follow the contour of the hill, mountain as we did in airbrush lesson two with the sphere.

Step 10 – Its time now to use the top off the rattle can of paint to create your moon or sun.

Step 11– Place your can top at the top of the hills, mountains about in the middle of them. Apply a nice light even layer of color around the can top that extends above the mountains, hills. Do not follow the out line of the can top down into the mountains.



Step 12 – There you have it our nice round moon or sun which ever you prefer to call it.

Step 13 – Now we will make a very simple free hand shield to add some trees to our little painting. Draw three triangles one top of another. The top triangle being the smallest and getting bigger as you draw the triangles below that. Use a craft knife to cut the out line of the trees out.



Step 14 – Now as we did with our hill or mountain, free hand template hold the tree template at the bottom of the hills, mountains add a little color.

Step 15 – Move your tree template a little to the right or left and apply some color.



Step 16 – Try and keep in mind not all trees grown straight its fine to angel some of them by just turning the template a little.

Step 17 – Move the template down away from the hills, mountains and use the amount of color you apply to add depth to your painting as we did with the mountains, hills. The trees in the back ground would be lighter color than the trees in the fore ground.



Step 18 – Now to complete our simple painting we will go back and add a little more shading within or forest, hills, mountains.

Step 19 – There you have it your second completed painting. I'm sure you can add a lot to this simple painting and hope you have fun with it.



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The Big Book of Airbrush Techniques and Materials by Joe M. Parramon

WEEK 5

1.4 MIXED MEDIA

Artists have many ways of creating art, and they're always experimenting with new ideas. Sometimes, an artist might paint on a series of photographs, or draw an image in India ink, and then embellish it with bright colored pencil. When an artist does these things, he or she is working in mixed media.

Mixed media art techniques are those that combine different methods and mediums to make artwork. A **medium** is a substance or material like oil paints, pastels, watercolors or colored pencils. It's something used to make art. When you mix media, you use two or more art mediums in a work that combines them into an image or sculpture.

METHODS OF CREATING MIXED MEDIA ART

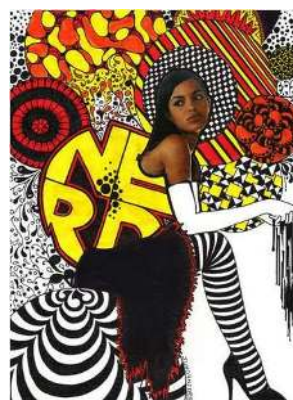
Collage

One of the most common ways of creating mixed media art is through a method called collage. **Collage**, developed by artists Pablo Picasso and Georges Braque around 1912, involves using bits and pieces of leftover material, or fragments like newsprint, wallpaper, photographs and twine. By gluing the fragments to a surface, and then adding painted and drawn elements if desired, the artist creates a new two-dimensional image.

Another way to make a collage is to position several pieces of paper fragments and newspaper articles on a board or canvas, and then carefully cover them with a clear acrylic gloss, varnish or gel, which adheres them to the surface below. When the acrylic dries, it can be drawn on with ink or markers, or painted over with more acrylic paint.



Example of a work done in collage, using cut colored paper shapes and newsprint



Assemblage

In the mid-20th century, another mixed media method developed called assemblage. **Assemblage** is similar to collage but done in a way that brings the art into three dimensions. Artists create sculptures from **found objects**, things like plastic bottles, barbed wire, tires and broken toys, that have been discarded in everyday life. Some assemblages hang on the wall, like paintings with elements that protrude from the surface. Others are completely freestanding sculptures.

An artist can also make an assemblage sculpture by connecting many pieces of metal by welding them together, and then decorating the new shape with fabric scraps, found objects and spray paint.

EXPLORING MIXED MEDIA

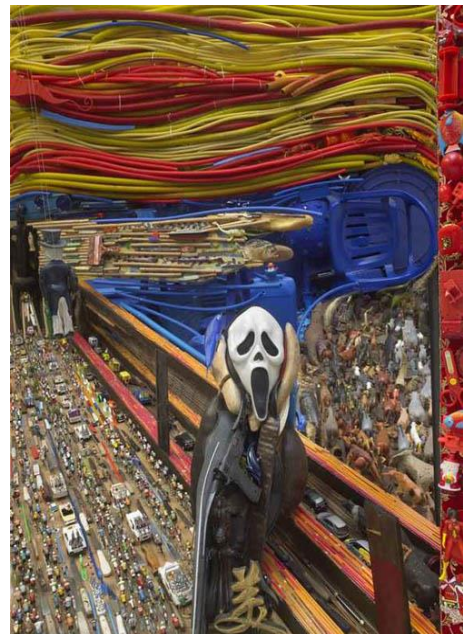
The possibilities are endless. Mixed media can be as simple as drawing an image in black ink and adding color with watercolor paints and colored pencil. You could also make a picture by cutting shapes out of fabric, gluing them to heavy board, and decorating the surface with Sharpie markers or acrylic paint.



Example of an assemblage that combines many small objects, rope and dripped paint on a painted surface



*David Goldberg Doorknob
Starry Night*



*Version of The Scream
formed by swarming toy
animals, while the sky is
made from red and yellow*



PAINTING WITH MIXED MEDIA

Painting with Mixed Media is a fun exploration of the many different ways you can mix traditional paint with other media to create an exciting range of artwork. This book, by Paula Guhin and Geri Greenman, features 132 pages of material and hundreds of photos to illustrate the concepts and techniques.

This how-to book is easy enough for beginners, but also appeals to non-beginners who want to expand their repertoire of knowledge and skills. There's a world of mark-making materials and inspiring surfaces to explore. If you've always wanted to combine different media but didn't know what to combine or how to combine them, this book is for you!

The five main painting mediums used in the book are acrylics, watercolors, oils, pastels and tempera. The lessons in the book show you how to use these various painting media in combination with each other, and also with other materials, such as wax, gels, powders, gelatin, conte and more. The book even demonstrates how to use materials you wouldn't normally associate with art, such as using plastic wrap and gelatin create mixed media art.

One of the strengths of Painting with Mixed Media is the sheer number of techniques it demonstrates, including: painting, drawing, layering, collaging, texturizing, sgraffito, create peeled paint effect, monoprinting, frottage, rubbing, slicing, weaving and more! By using these techniques, you can make collages, scrapbook pages, decorations, greeting cards - any type of artwork you can think of, really.

The artwork in Painting with Mixed Media also spans across a range of styles and subjects, from representational art (such as the floral still life and richly colored portrait below):



Abstract and non-representational art (such as the examples below):



A woven mixed media abstract painting



Mixed Media painting using oils over Acrylics

Painting with Mixed Media encourages you to step out of the box, to move beyond the concept of simply applying paint to canvas and to try new things, explore new combinations, and experiment with new techniques. If this sounds appealing but you don't know where to begin, this book will help you get started.

The pages are sprinkled with finished art accompanied by a caption that lists the materials used to create the piece. These examples can spark ideas and get the ball rolling. Painting with Mixed Media also contains step-by-step demos that show the artwork at different stages in the process, with instructions.



This piece uses white gesso and pastels to build a portrait from the ground up. In addition to demos and examples, there are also tips and hints scattered throughout the pages. For instance, the "Savvy Substitutions" provide suggestions on budget-friendly alternatives if the listed art materials are too expensive for your budget. "Green Scene" tips offer eco-friendly ideas for reusing items you probably already have around your house.

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WEEK 7

2. MODEL MAKING PRINCIPLES AND TECHNIQUES



Scale models are still the most effective and instant way of completely communicating a concept, despite the advances in computerization. Building a scale model for a student project requires that the student understand the full three-dimensional spatial arrangement and implications of the scheme, because all surfaces and planes must be fully explained and integrated with one another to form a cohesive entity. You cannot just leave indeterminate lines as on a drawing or omit a view, the resolution of which you are unsure, when you are constructing a model from that set of drawings. That is, in fact, why many very fast, crude study models are made in architects' offices—to clarify and prove unusual, complicated, or otherwise uncertain interfaces and spatial arrangements. Or, in other cases, when the designer has the complete mental image, a quick scale model mockup is the best way to convey that to owners or other involved people.

Modeling, in addition to allowing you to fully convey the concept to the viewer, also teaches the student to properly comprehend the three-dimensional totality in its esthetic and functional aspect. You must figure out how it will all work in order to build a scale model.

In architecture, the considerations are much more concerned with form and esthetics, as well as function. Therefore, in many aspects of architectural model making, surface texture and color also play an important role.

Your first consideration is the design and drawings.

In projects such as these being discussed, it is preferable that plans, elevations and sections be drawn at the same scale as the intended model. It is not mandatory, but it makes understanding and model interpretation easier. Most professional model makers will prepare several drawings of the building at actual model size. They will draw the plans and sections using the actual thickness of material they are intending to use, as well as how they will butt together in corners or at floor joints. To the novice model maker, this may seem like a lot of wasted effort and ask himself “why not just get on and build it making adjustments as you go”.

When the professional sits down and commences to make model drawings, she/he is actually mentally designing the whole process of how the model will be constructed, no guesswork. Then, the building operation flows through much more smoothly and any difficulties are identified before they become problems.

To the time-pressed and neophyte student model maker (not forgetting cost conscious, if not impecunious), this process will seem like a lot of unnecessary effort.

The point was illustrated so that the student will be better able to make the decision on how best to plan her/his project. If there is any consequential site work involved, this may well be drawn at a smaller scale than the model.

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What is Accurate Visual Representation?". Flying 3D. Retrieved 18 June 2015.

The Architectural Model: Histories of the Miniature and the Prototype, the Exemplar and the Muse (The MIT Press) Hardcover – Illustrated, October 8, 2019 by Matthew Mindrup

<https://www.archdaily.com/799474/16-tips-to-improve-your-model-making-skills>

Principles and Techniques in Scale Model Making

<https://www.rjmodels.com.hk/architectural-models-guide/>

WEEK 8

2.1 ARCHITECTURAL MODEL SCALE

Your project may well have pre-determined this question, but the following are the most commonly used scales for particular types of projects.

As there is no universal unanimity on the use between imperial or metric measurement, we will quote both, using the closest comparisons. An example would be 1:50 or $\frac{1}{4}" = 1\text{foot}$ (which is of course 1:48). While you will build specifically to one or the other in terms of building dimensions, there are many premanufactured materials, supplies and accessories such as those manufactured by MBS (Model Builders Supply) that you may employ for your model, where the difference in scale is so small that there is no distinction made. Examples would be brick, roofing, people, vehicles, furniture and accessories.

It is very common for students embarking on their first model, to over visualize the correct size for brick, roof shingles, windows etc. It is important that you do use the proper scale items because they are significant to the viewers' correct comprehension for the scale of the project. That is often why figures and cars are put on models, to reinforce the scale relationship, as well as focus on entrances, activity areas and traffic patterns.

RESIDENTIAL SINGLE-FAMILY BUILDINGS



The most widely used scale is 1:50 / $\frac{1}{4}" = 1\text{foot}$ because it is large enough to portray the detail aspects without the entire mass becoming overwhelming and physically unmanageable. While architecture is an expression of individuality, there are nonetheless many standard items, both in reality and for the model, which the designer will utilize and integrate into the project. In model making there are probably more standard items at this scale than any other.

If your project of a house was to include any extent of site detailing for the garden, terraces, patios, gazebos, entrances, or landscaping in general, it may be that the overall extent could dictate that you drop the scale to 1:100 / $\frac{1}{8}" = 1\text{foot}$ in order to keep the base size manageable. 600x900mm / 2ftx3ft is about as big as you would want a base size,

to literally move it around without undue difficulty. There are also many “off the shelf” items for this scale, but probably not as many internal items, if that was a consideration. $1:25 / \frac{1}{2}'' = 1\text{foot}$ is also widely used, but this mainly where specific detailing, texture, particularly for interiors, is paramount.

In professional use, for display and public presentation this scale is more prevalent. The other area where this scale is popular, is for interiors. Interior Design students frequently utilize this scale as it offers enough size to convey texture as well as form, without getting too large.

Where interiors are the specific focus, and style as well as texture and spatial arrangement are important, the student may choose to go to $1'' = 1\text{foot}$ which is the universal scale for Dollhouses and Miniaturists. Just about anything is available, from building materials, windows, doors, lighting, furniture, wallpapers, carpets and just about every accessory imaginable.

COMMERCIAL / INDUSTRIAL BUILDINGS



Scales of these are usually somewhat smaller than for house models, mainly because the structures involved are usually much more extensive in plan, sitting and general mass. There are of course, exceptions, such as when a developer wants a model to have a significant marketing impact by having a large, impressive display.

It is rare for models in this category to be larger than $1:100 / \frac{1}{8}'' = 1\text{foot}$.

LANDSCAPE ARCHITECTURE MODELS

Often landscaping design is included in an overall model. However, landscape architecture being an identifiable discipline itself, will frequently require the designer to construct a specific model. The scales can be quite varied. For a median residential project, it is quite likely that $1'' = 1\text{foot}$ may be used. Or, as the overall size expands it can drop to any scale to perhaps $1:200 / \frac{1}{16}'' = 1\text{foot}$. In projects such as golf courses, the scales become similar to those in the major development category above.

Companies such as MODEL BUILDERS SUPPLY manufacture an extremely wide range of trees, bushes, shrubs, ground cover, grasses, blossoms, vines, water textures and colors as well as having many street and outdoor furniture accessories that cover all the scale options.

The most popular scales are $1:200 / 1/16'' = 1\text{foot}$ and $1:500 / 1/32'' = 1\text{foot}$ for projects where there are multiple buildings and the siting is dominant.

In the imperial scales (fractional), there are several intermediate scale options and where small-scale site models are concerned, there are a range of scales expressed differently. These are generally known as Page 3 of 11 engineering scales and are stated as $1'' = 20\text{ft}$, $1'' = 50\text{ft}$, etc. whereas the architectural fractional scales are expressed as $1/8'' = 1\text{ft}$ or $3/32'' = 1\text{ft}$, etc. The following chart lists most scales used and their various closely matching equivalents, as well as products available from MBS.

SCALE	RATIO	USE COMMENTS	FINISHED MATERIALS AVAILABLE
$1'' = 100\text{ft.}$	1:1200	Overall development sites.	Cars, trees, houses, base materials.
1:1000	1:1000	Overall development sites.	Cars, trees, houses, base mtrls, airliners.
$1'' = 80\text{ft.}$	1:960	Overall development sites.	Cars, trees, houses, base materials.
$1'' = 60\text{ft.}$	1:720	Housing, commercial development sites.	Cars, landscape, base materials, houses.
1:500	1:500	Housing, commercial development sites.	Vehicles, l'scape materials, houses, people.
$1'' = 50\text{ft.}$	1:600	Housing, commercial development sites.	Cars, l'scape, base mtrls, houses, airliners.
$1'' = 40\text{ft.}$	1:480	Housing, commercial development sites.	Cars, house, boats, l'scpe mt'ls, st. furn, figs.
1:400	1:400	Multiple housing, commercial developments.	As above.
$1/32'' = 1\text{ft.}$	1:384	Multiple housing, commercial developments.	As above.
1:300	1:300	Multiple housing, commercial developments.	Few specific items.
$1'' = 20\text{ft.}$	1:240	Commercial and industrial projects.	Vehicles, boats, figs, airliners, st. furn, L'scpe.
1:250	1:250	Commercial and industrial projects.	As above plus fences & specific items.
1:200	1:200	Commercial and industrial projects.	As above. Popular scale.
$1/16'' = 1\text{ft.}$	1:192	Commercial and industrial projects.	As above.
1:150	1:150	Commercial and industrial projects.	Cars, figures. Not a popular scale.
$3/32'' = 1\text{ft.}$	1:144	Commercial and industrial projects.	As above.
$1'' = 10\text{ft.}$	1:120	Houses, commercial & industrial projects.	As above.
1:100	1:100	Houses, commercial & industrial projects.	Popular scale, most items avail. + interiors.
$1/8'' = 1\text{ft.}$	1:96	Houses, commercial & industrial projects.	As above.
1:75	1:75	Rarely used.	No specifics.
1:50	1:50	Houses, interiors, small comm & ind projects.	Popular scale, best avail. + interior items.
$1/4'' = 1\text{ft.}$	1:48	Houses, interiors, small comm & ind projects.	As above.
$3/8'' = 1\text{ft.}$	1:32	Primarily for engineering process modelling.	Everything for engineering models.
1:25	1:25	Engineering, interiors, sets, sections.	Wide range of all items. Popular scale.
$1/2'' = 1\text{ft.}$	1:24	Engineering, interiors, sets, sections.	As above.
1:20	1:20	Interiors, study sections.	Some figures, no other specifics.
$1'' = 1\text{ft.}$	1:12	Dollhouse/Miniaturist, study sections.	Everything except major trees.
1:12	1:12	Dollhouse/Miniaturist, study sections.	As above.

For projects that mainly involve the modeling of a building other than a shopping mall or a large industrial complex, the most likely scale would be $1:200 / 1/16'' = 1\text{ft}$, again recognizing the need for portability, while maintaining sufficient size to reasonably portray the fundamental design.

If the project entails designing a complex of some acreage, then the scale will be reduced to retain the portability, while showing the significant elements for the spatial relationship of the buildings, traffic and pedestrian access and flow. This could mean any scale from perhaps 1:500, down to $1'' = 100\text{ft}$ (1:1200).

INTERIORS / THEATRICAL SETTINGS / SECTIONAL STUDIES

These models are focusing on a series of detail elements within a larger structure, about which we are not concerned.

As we are dealing with wall coverings, floors, furniture, plants and specialty interior design items composed into a design entity, it demands a size large enough to clearly get the message across. There are many pre-manufactured components at $1:25 / \frac{1}{2}'' = 1\text{ft}$, which is probably the most widely used scale for these functions.

As previously noted, $1:12 / 1'' = 1\text{ft}$ is dollhouse scale and there is far more selection for interiors than any other scale. Depending on the requirement and use for the design model, it may be that the availability of such a range of parts will dictate the employment of this scale, despite the cost.

It is quite common for courses in building construction, to build models of specific sections for a structure, say a wall, from footings to a roof with part of a truss. The purpose of these models is for the student to correctly model the proper building details, sizes and how they interface. Scales for such models will be from $1:25 / \frac{1}{2}'' = 1\text{ft}$ upwards. $1:12$ is not uncommon, also $1:20, 1 \frac{1}{2}'' = 1\text{ft}$ and occasionally $3'' = 1\text{ft}$.

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What is Architectural Visualisation?". Flying 3D. Retrieved 18 June 2015.

What is Accurate Visual Representation?". Flying 3D. Retrieved 18 June 2015.

The Architectural Model: Histories of the Miniature and the Prototype, the Exemplar and the Muse (The MIT Press) Hardcover – Illustrated, October 8, 2019 by Matthew Mindrup

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WEEK 9

2.2 MATERIALS

I am going to preface this by saying that generally, the objective for students' model building, is not so much to train them as model makers (although some will choose to follow that profession) as to teach them three dimensional thinking and comprehension and provide them with knowledge of another tool with which to develop and portray their design concepts. The point of this is, that I do not believe students have the time necessary to put into a model, in the best of circumstances, so they should not be burdened with time consuming and usually irrelevant project criteria that forces them to hunt out and use materials that are unnecessarily time consuming and of no future help. I will therefore confine most materials reviewed, to those that fulfill the following criteria:

- EASILY OBTAINABLE
- REASONABLE COST
- FAST IN USE
- DO NOT REQUIRE SPECIAL MACHINERY OR TOOLS
- WILL YIELD A GOOD-LOOKING PRESENTATION
- IS APPLICABLE FOR USE "IN THE REAL WORLD"

Initially we will identify the materials, then go on to describe how and when to use them.

HI-IMPACT POLYSTYRENE

The number one material used for a wide range of model making applications is. This is usually available in solid white of all needed thicknesses, although MBS does have several other colours in .5mm thickness.

ACRYLICS

(Frequently referred to as Plexiglas) are also extensively used in architectural model making. The two main reasons are the availability of a wide range of transparent tints suitable for architecture, in thicknesses of 1.5mm .8mm and .5, and the fact that acrylics are very stable and score readily on the surface. MODEL BUILDERS SUPPLY stocks a good range of the very thin cast acrylics in many colours.

BASSWOOD - This is a fine-grained wood that is available in a wide range of sticks, sheets and blocks. It is somewhat harder than balsa wood but is still quite readily cut with a craft knife for most thicknesses and does not collapse and crush like balsa. It paints very well and gives a far superior appearance to balsa.

OPEN CELL FOAM - This material is the same as that used for insulation and comes in thicknesses of 1, 2, 3 and 4". It is light blue or pink and is readily cut with a fine saw or a knife. If you have the availability of a hot wire cutter, that is fast and clean when using the material for block buildings. Mostly this foam is used on bases, to create contouring.

THE RIGHT TOOLS TO USE FOR CUTTING AND ASSEMBLY

First, the cutting:

Cutting is the actual first step of the model making, and it is not an exaggeration when we say it can make it or break it. Neatly cut pieces give an overall aesthetically pleasing understandable architecture model. If the edges are all messy, the model might not be perceived well. To ensure clear-cut edges you need to use:

Fresh blades: Stainless steel wheel-locked utility knives with replaceable blades are best for neat cuts. The changeable blade size, also, makes the cutting easier and better.

Precision knife: They are very sharp, durable, and easy to maintain. They are best used for small details. They can easily cut through paper, foam, fabric, thin metal, and plastic.

Scissors: Small titanium scissors are needed for fine details. Be careful to buy ones with a comfortable grip, so they will not hurt with long use.

L-Square: Stainless steel L-squares help you draw perpendicular lines easily and accurately. Attaching masking tape to its back make it hold better to the material below and avoid sliding.



Metal Ruler: 6", 12", and 18" metal rulers can all be handy depending on the size of the model. These are best for the cutting.

Self-healing Cutting Mat: They will protect the cutting blades from dulling fast, and after all, you don't want to ruin your desk.



Laser Cutting: If you are not confident in your cutting or you are willing to pay more, then you can take that shortcut. You draw the sample pieces on AutoCAD and the laser cutter will do the rest.



Tip 1: Be careful not to cut yourself, especially with the precision knife, and keep the first-aid kit by your side.

Tip 2: Make prototypes for all the different pieces and then use them as templates. It makes the cutting much easier and faster.

Tip 3: Before going for laser-cutting, try to do the manual work and get the sense of it. It is an irreplaceable experience.

White Glue: There are non-toxic white glue products which stick materials strongly and neatly. However, it takes a while to dry.



Tacky Glue: It is like white glue but thicker, so it's stronger than the normal white glue, and it, also, dries faster.

Hot Glue: It dries the fastest and gives a strong bond, however, you need to be cautious while using it, since the hot glue can burn you. Also, since it dries fast and strong, you can't afford to make mistakes. Finally, the glue guns tend to have a short lifespan. They break easily and need to be replaced.



Wood Glue: Obviously, you will need that if your model will make of wood. You need to clean the excess glue immediately because it stains.

Double-sided Tape: This tape sticks on both sides. It is strong, neat, and adjustable, but be careful when placing it because if you try to remove it after, it will tear away the paper or the foam board surface.



USE FOR FINISHING MATERIALS IN ARCHITECTURAL MODEL

This step might require a bit of creativity on your side. After all, there is a large variety of materials that can be represented differently. However, the most common way to represent the finishing material is to:



Print bitmaps of the tiles or bricks in the right scale and measurements and stick it accurately to your foam board walls.

- Instead of printing, buy from the available variety.
- Corrugated paper sheets can be used for roofs. They can also be used for some wall finishes.
- Thin transparent plastic sheets, also known as clear sheet print, can be used to indicate glass.
- Balsa wood strips can be used for wooden screens and other wooden finishes.
- The brownish color of the cork sheets might also give a general impression of wood.
- For colored surfaces, you can paint the paper or foam board by color sprays.
- You can also use colored sticker paper, which is available in craft shops.
- If there is too much of a certain color, you can just buy colored foam board. The filling is white but the smooth surface is colored.

Tip: Don't overdo it. Think carefully about what you would like to reflect from your architecture model. Too many materials, and especially the stickers with no texture, will look artificial. Just show what is important. Now, let's tweak the model with furniture and some landscape elements.

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WEEK 10

2.3 BASES FOR ARCHITECTURAL MODELLING



In scale modeling of dioramas, model railroad layouts, architectural models, gaming boards and even dollhouse miniatures, the way scenery and landscaping is done can “make or break” the whole finished effect. The type of model, or its’ use, often dictate quite varied approaches.

For example, an architectural model for institutional, commercial or industrial projects will usually not dwell unduly on landscaping features, but rather focus more on the building design, with some focus on entrances, access routes or other aspects specific to the function of the building or complex.

This often entails simplified or stylized forms of trees, shrubbery and planting. Sometimes cork, wood or foam balls will be used for trees and bushes. Other times you will see just sticks or bare tree frames. Also, dried weeds such as yarrow are used. Generally, these treatments are confined to the smaller scales (1:200 and less).

On stylized models, the surface treatment is often left unpainted except perhaps for the paved areas. This means the landform will have been made from cork or a natural coloured cardboard, probably in stepped layers representing the topography. For smaller scale models, it is usual to paint grass areas with a technique of two or three colour series of uniform “oversprays”. Some situations will allow the use of appropriately coloured craft sheets. In this situation the best way to apply is by using MBS STICK’M sheets covering the whole surface to avoid buckling. It is cheap, fast, clean and permanent.

Residential buildings and complexes on the other hand, invariably place a significant emphasis on the landscaping and environmental conditions around the site. This is especially true if the model is to serve as a promotional and marketing tool for selling, leasing, renting or financing. This type of model is frequently built to larger scales (1:100, 1:50 etc.). Grass on models at these scales will usually be one of MBS’s many grades and colour blends.

As you will read when you look in the landscape materials section, most Model Builders Supply scenic material and architectural tree heads have a unique feature not known in any other manufacture of such materials: They are made from a totally permanent flexible plastic composition that will always remain soft and flexible, will never dry out, crumble or lose its colour. This attribute is particularly significant if the model has to last any length of time, such as for museum models, railroad layouts, dioramas, sales display models, or any model that will be subject to hot tropical weather, or on display in a store window, or under continuous spotlights.

Realistic detail is almost always the case for house models, dioramas, miniatures, model railroad layouts and similar hobby projects. The modeler strives to achieve the most natural appearance.

BASE BUILDING

We have a wide range of materials here depending on your purpose, available time, and level of expertise. The basic and most commonly used base material for an architecture model is foam.

- **White Foam boards** come in multiple thicknesses, but most commonly 3mm and 5mm. These solid boards can be used as a base for models created from foam and other light materials. You can, also, use them to construct walls, and choose the thickness based on the scale. If the interior wall will not be visible, then the thickness doesn't matter.
- **Cork sheets** are textured brownish sheets which are less thick and more flexible than foam boards. They are easier to handle and cut but they can break easily.
- **Foam sheets** are flexible but not easily breakable. They come in colors and small thickness; they can be cut easily with scissors.
- **Wood** can be used for modeling, especially Balsa wood which can be cut easily and painted. Wooden boards can also be used as a base for the heavier models. Balsa strips can be used for structures with the wooden skeleton, or to show trusses.
- If your model is more of a conceptual or a form-oriented type you can go for materials that can be easily shaped like heavy Canson sheets, paper, wires, or clay, and if you have the patience you can experiment with gypsum or paper mâché.

These notes are intended to give guidance on ways and means for adding scenic and landscape details to topographical landform bases rather than how to build such bases, however, we will digress a little to briefly cover several methods for creating the basic landform.

Flat sites need no explanation. If berms are to be added, on flat sites or otherwise, the easiest way is to shape the berm from hi-density open cell foam, feathering the bottom edge to meet the flat base. Glue down with Weldbond then wipe a smear of Spackle around the perimeter.

Contouring on many architectural sites is frequently largely graded, therefore often the planes are straight slopes tying into existing grades. This invariably means that a base winds up to be a combination of planes intersecting along reasonably straight lines to other levels. Stated simply, the way such model bases are usually constructed is to start with a

flat plywood or chipboard plate that is established as roughly the lowest level that is within the site. This becomes the datum level. Then a series of vertical profile strips is set on the plate in the form of an egg crate. As the top edge of each profile is the surface elevation, the egg crate can then be covered with a “skin”, usually a number a pieces, to give the correct grade levels.

Another way to get the same kind of result, is to carve the grades from block styrofoam, first mounted on a base plate. This is more often used when there is a lot of compound grades, bumps, berms, hills, etc. The surface has to be skimmed over with a paste to give a uniform finish and fill in any cracks. Spackle or thinned Durina are preferred choices. When dried, the surface must be sanded, at least in some areas, before the grass or other finishes are applied.

In many cases, roads, parking lots, paved areas that are flat in the cross direction, are best defined by making all such surfaces cut out from a sheet of 1.5mm (.060”) hi-impact styrene, creating a network, that is fastened to the vertical egg crate profiles, then the remaining open voids between are filled in by one of the previous methods. If the road network plays a dominant part of the site, it is quite common to first develop the base perimeter profiles, then build profiles to establish the correct grades for the road network and make profiles for the remaining areas as needed to set the correct grades.

On any site that has a building tied in to varying grades, it is most desirable to build a plan “footprint” platform at the lowest level. This assumes that the structure will stand vertically. Fitting the land surface around the building is a process that must be done with care and precision, otherwise gaps will look unsightly. Sometimes foundation planting can hide gaps, or where applicable, sidewalks that are added after the building is in place.

Many architectural models transpire to be a combination of several of these techniques. On model railroads and similar hobby modeling there is usually much more rugged, rocky outcrop, mountainous terrain to be dealt with. The most widely used technique for this type of topography is basically the egg crate principle, using Masonite for the profiles, then covering the surface with a wire netting which is then covered with a skin of some setting type material.

There are many versions and individual preferences for this phase of the operation. Plaster is a common favorite, usually soaked into newspaper, cheesecloth, or medical cast bandages. This is quite a messy process, but plaster lends itself very well to carving into realistic rocky formations and also colors well. Another surfacing material is paper mache, it is simple to apply and not so messy. You do, however usually have to add plaster where you want rock outcrops. A further material that gives significant strength and is easy to mix and apply is Durina plasticized instant paper mache (basically a pre-made paper mache). It has a natural earthy color and has a long enough setting time to allow molding and modeling of surface conditions, including rocks. It paints easily, can be drilled, sawed, sanded or filed.

As a general rule, pre-paint your base surface with a color approximately that of the proposed finish. We will assume that you intend to create a grass area, a planter, or scrubby grass in amongst rock outcrops.

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WEEK 11



2.4 LANDSCAPING AND SCENIC EFFECT FOR ARCHITECTURAL MODELLING

Using a thick flat alkyd or latex based paint, repaint over the previously primed surfaces with a generous coating. Using a flour sieve, saltshaker, or tea strainer, sprinkle a grass mixture thickly over the paint. If you want to have a regular lawn like finish, you will maintain the one chosen color over the whole area. If you want to have an unkempt natural variegated surface, you will apply in an appropriately irregular manner, then switch colors. You must remember not to cover the paint on areas you want a different color. Normally this will result in a gradual blended variation. If you want a sharp definition line between colors or textures such as you would find on a golf course, it is better to do it in separate operations following one another.

Another method is to pre-paint a base color then apply a spray adhesive and sprinkle as previously described. It is possible to continue additional texture blending by spraying over any desired parts, either to cover thin areas or to change the appearance.

By sprinkling fine sand or gravel in thinning and varying patches first, then covering the whole surface with a grass texture or a ground cover, a rough ground effect will be achieved.

In all the above procedures, when the paint is dry, the excess material should be lightly brushed off, or if possible, tip the model over and pat it to shake off the excess. These methods will enable you to recover the excess. The other way is to lightly vacuum the surface.

When in designed settings, the limits are usually well defined, and the base color may or may not be visible. If it will be, then it should be pre-painted and a transparent glue such as Weldbond should be used or mix your base paint with the Weldbond before applying. Another adhesive we like to use is panel adhesive, it is really thick and sticky and is usually a light tan color which looks fine for dry earth, if any remains visible. The only potential drawback is that it comes in a cartridge that you use with a caulking gun. When such ground cover is used in its wild state, either fine sand, grass texture or a combination can be sprinkled over once all the ground cover is in place. This covers any exposed glue and gives the ground cover/shrubbery that natural grown in look.

Trees are a significant element of landscaping, environmental and site development. On a model, they add realism and scale if well done. On the other hand, if they are just lumps on a stick, looking like toffee apples, they can ruin the whole

appearance of the model. Most trees can be used for a variety of scales, they will just represent different heights, i.e. a tree that is 30ft/25m high at a small scale, say 1:500 would be used as a bush or tubbed plant at 1:100 or 1:50 scale.

When using the molded armatures, it is usual to twist the branches from the originally molded shape to a more irregular configuration. In doing this you must be careful not to rip off the branches. By warming the tree in hot water or with a heat gun (on low), or a hair dryer (on high) you will minimize the chance of snapping off branches. You can easily create different species such as pines, by clipping off a number of the branches, just leaving short stubs sticking out from the trunk.

For large scales, HO scale and $1/8'' = 1\text{ft} / 1:100$ scales, most species will look best when using the size 2 or 3 foliage but as the scales reduce, it is preferred to use the number 3 or 4 size.

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WEEK 13

3. ARCHITECTURAL PHOTOGRAPHY

Architecture refers to the design, engineering, and construction of manmade structures, as well as the final structures themselves. Endless architecture styles have emerged throughout the centuries, each with its own unique expressions: Romanesque, Gothic, Classical, Neoclassical, Baroque, Modernist, Brutalist, etc.

While it's possible to simply point a camera at a building or a bridge and snap a picture, there is an art to photographing architecture. Famous architectural photographers include Albert Levy, who began photographing older buildings in the 1870s, and American mid-century modernist Julius Shulman, who became popular after photographing modern buildings.

2 STYLES OF ARCHITECTURE PHOTOGRAPHY

Architecture photography boils down to two distinct types: exterior, and interior.

1. Exterior architecture photography

This refers to photographs of the outside of a structure. Exteriors benefit from a wealth of natural light, which makes them easier to photograph. Depending on the whims of nature, exteriors may also produce wildly varying, moody, and dramatic results.

2. Interior architecture photography

This refers to photographs of a structure's interior. Interiors are often more challenging to capture as ambient light available through windows or skylights is often limited, and sometimes filtered, as through colorful stained-glass windows in churches. Supplemental lighting in the form of a flash helps accurately capture interiors.

BEST CAMERAS FOR ARCHITECTURE PHOTOGRAPHY

Whether it's a smartphone or DSLR, any camera can capture interesting architectural shots.

Smartphones, like Apple's iPhone, can take surprisingly good architecture photos when paired with manual camera apps like Adobe Lightroom.

Digital cameras, especially mirrorless cameras and DSLRs, provide more freedom in experimentation with lenses and more control in manual mode for camera settings like exposure, shutter speed, and ISO. Canon, Nikon, and Sony all offer a range of functional cameras, from affordable point-and-shoot cameras to top-of-the-line mirrorless cameras.

View cameras, which allow for large format photography, are the best camera for providing the most professional looking images and are preferred by dedicated

architecture photographers the world over. However, their bulk and hefty price tag make them less than ideal for new or hobbyist architecture photographers.

BEST EQUIPMENT FOR ARCHITECTURE PHOTOGRAPHY

There is an assortment of photography equipment available to help you capture spectacular shots of architecture.

Camera. For the casual or beginner architecture photographer, a DSLR camera will provide all the necessary modes and settings you need to shoot architecture images.

Tripod. Whether you're using a heavy telephoto lens or shooting a long exposure of an architectural subject, a tripod will steady your camera and lead to crisper, sharper final images.

Flash. For interior architecture shots, equip your camera with a flash attachment to get brighter, more vivid images. You can also expand your kit to include speed lights, bounces, and shoot-through umbrellas for even more lighting help.

Standard camera lens. A standard zoom lens or prime lens will suffice for capturing detail shots, both inside and outside. Learn more about choosing the right lens [here](#).

Specialty camera lenses. Specialty lenses allow a photographer to experiment with perspective and depth in creative ways. For instance, a tilt-shift lens fakes a shallow depth of field to help you play with the viewer's sense of scale; a wide-angle lens captures larger sections of exteriors; and a fish-eye lens can distort interior shots in interesting ways.

Elevation. Architecture photography is not simply limited to shooting from ground level: elevation can provide a unique take on an otherwise common shot. Since most structures are much larger than the average photographer, angles become as important as a sense of adventure. Ladders, stairs, boulders, skyboxes, and rooftops of other tall buildings are some ideas to get you started on exploring perspectives.

HOW TO PHOTOGRAPH ARCHITECTURE: STEP-BY-STEP GUIDE

Once you've chosen an architecture interior or exterior to photograph, follow these simple guidelines to capture it effectively.

Do your research. Every architectural structure has a story. Research the architect and his or her influences as a starting point, along with the style and the date the building was constructed or renovated.

Get a first impression. When standing in front of or inside a structure, first look around and take stock of everything you see. What do you notice first? Where is your eye drawn? Let your gut be your initial guide to what's interesting about your architectural subject.

Zoom in on details. If you've done your research, you may notice small details that line up with the narrative of your architectural subject. If you haven't done any research, or the building's history isn't sparking any particular inspiration, there is still plenty to

explore. Consider the shape of the roof or the materials of the ceiling or floor. Look for repeating design elements or unusual symbols. Architecture photography is as much about capturing the details as it is about documenting the whole.

Zoom out on the landscape. It is also important to survey the landscape and place the architecture in context. If there is a body of water nearby, try capturing the reflection of the building alongside the building itself.

Incorporate other structures or rooms. If there are other structures that contrast nicely with your subject, try incorporating them into the frame. For interiors, try capturing your subject from an adjoining hallway or room that offers a different perspective. Photographing these details provides an additional layer of complexity and interest to architecture photography.

Shoot from every angle. When you feel you've exhausted your architectural subject, look for different angles, perspectives, and vantage points that may offer a fresh take. Can you shoot an interior from above, or through a window? What does that bridge look like from underneath? Is that building as impressive from the air as it is from the street?

Shoot at different times and conditions. What does your exterior subject look like on a rainy day? How does the light of a desk lamp on a dark night affect the feel of an interior? Different times of day and weather conditions can add a unique atmosphere to your architectural photos.

HOW TO EDIT ARCHITECTURE PHOTOS

Post-processing and photo editing are important finishing steps in architectural photography. Once you have an array of raw, unedited images, upload them to your computer and edit with Adobe Photoshop or Lightroom, the industry-standard tools.

Adobe offers two pieces of photography post-processing software: Photoshop and Lightroom. Both provide a full suite of tools to edit photos and are available as photo editing or shooting apps for both Android and iOS.

Photoshop is more suited for retouching small areas (like say, if a single, errant piece of trash sneaked into your shot), for layering, and for compositing and stitching images to create composite images like triptychs or panoramas.

Lightroom is a more comprehensive post-processing app that gives the photographer control over detailed and global adjustments when you edit photos. The most common editing tools include fixing perspective, exposure, contrast, and cropping, but Lightroom is also known for its presets, which is a faster way to automatically apply layers of filters with a single click.

Photomatix and other apps specifically focus on certain aspects of editing, like merging underexposed and overexposed photos to create a properly balanced final image.

4 ARCHITECTURAL PHOTOGRAPHY TIPS AND TECHNIQUES

Follow these tips to get the most out of your architectural photography.

- 1. Position matters.** The simplest way to achieve a stunning photo is to position the camera perpendicular with the vertical lines of a building. Produce a visually arresting image by controlling the perspective and adjusting the focal plane to capture multiple parallel vertical lines.
- 2. Keep an eye out for dynamic shapes.** Clean lines set against a clear sky highlight the symmetry of a structure but keep an eye out for curves or other dynamic shapes that add a sense of movement to an otherwise still image.
- 3. Find the right light.** Wait for the light to shift and capture the change in shadows stretching off windows or columns. If the light is not ideal, adjust your shutter speed and aperture (or, on a smartphone, your exposure setting) with the aim of grabbing three shots: underexposed, automatically exposed, and overexposed.
- 4. Play with your camera settings.** Since each scene is different, play with shutter speed and aperture for the three shots above, capturing one that is darker than you'd like, one that is brighter, and one that seems fine, but could use some work. Perfection does not matter at this point in the process, as you'll be merging these three images during post-processing to produce a final, balanced image.

Considering we are surrounded by architecture, from the ancient to the hyper-modern, it's a good thing little skill or expertise is required to nab that perfect shot. As long as you have a camera in hand, you can begin experimenting with architecture photography, starting in your own home before exploring the world beyond.

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Complete Guide to Architecture Photography: Techniques, Equipment, and 6 Tips Every Architecture Photographer Should Know Written by the MasterClass staff

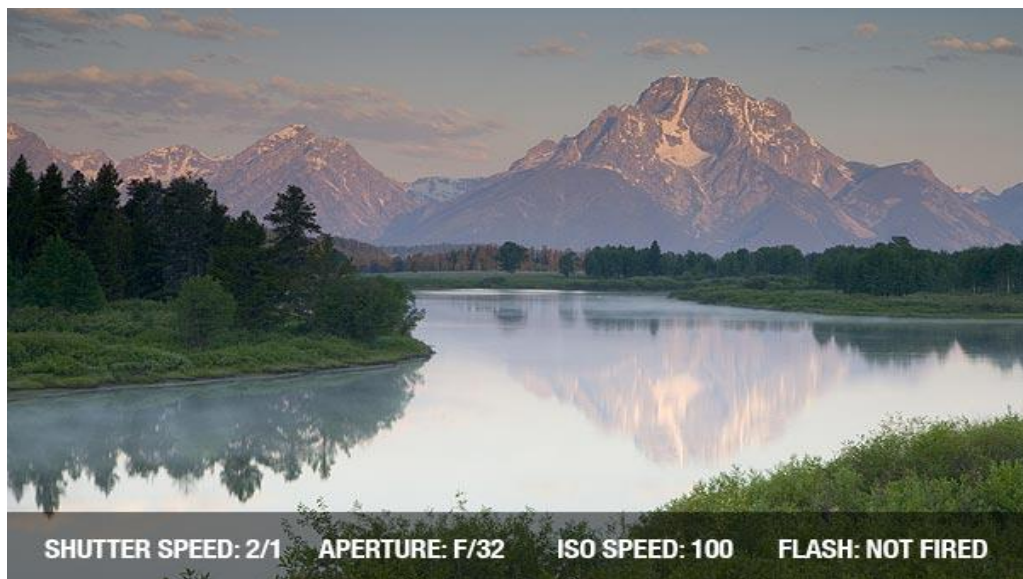
WEEK 12

3.1 PHOTOGRAPHING BUILDINGS AND LANDSCAPES

Landscape photography is a favorite with professional and amateur photographers alike.

There awaits a wealth of natural landscapes filled with beauty and drama, always changing with the seasons. To avoid taking bland images, follow these top landscape photography tips.

1. Create Depth



When you are taking a landscape photograph, try creating a sense of depth by keeping all the different elements of the image in focus.

To do this you need to use a small aperture, from f/16-f/22 because this keeps objects in the foreground and background sharp. Place your camera on a tripod (this will eliminate camera shake) when using a small aperture, as less light will be entering the lens.

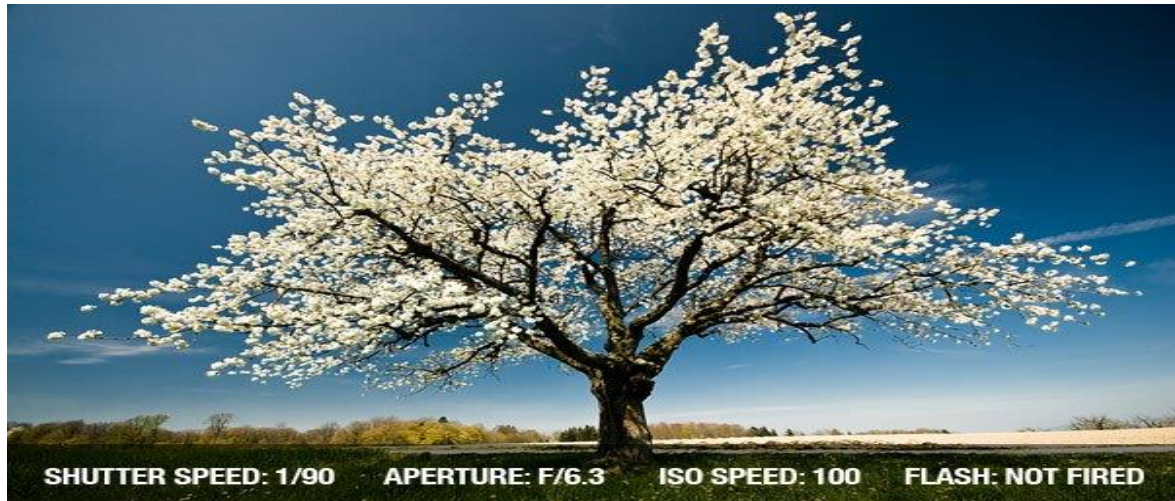
2. Use a Wide-Angle Lens



Wide-angle lenses are preferred for landscape photography because they can show a broader view, and therefore give a sense of wide-open space.

They also tend to give a greater depth of field and allow you to use faster shutter speeds because they allow lighter. Taking an image at f/16 will make both the foreground and background sharp. Remember to try some interesting angles with the photograph.

3. Use Photographic Filters



To get the best possible images, you can make use of two filters in your landscape photography.

Polarizing filters darken the sky and therefore bring out the blues in contrast to the white of the clouds.

Neutral Density (ND) filters prevent too much light from entering the camera. This is useful on bright days, when the camera is unable to give you a slow shutter speed (you may want to capture the movement of the sky or water for example).

4. Capture Movement



If you are working with moving water, you can create a stunning white water effect by choosing a long exposure. One way to do this is by using TV or S (Shutter-Priority) mode and choosing an exposure of 2 seconds or longer. You can also use AV (Aperture-Priority) mode and choose a small aperture like f/32 (which generally requires more light).

If working with bright daylight you must use an ND filter to reduce the amount of light hitting the camera, and this way the camera will allow you to have a longer shutter time.

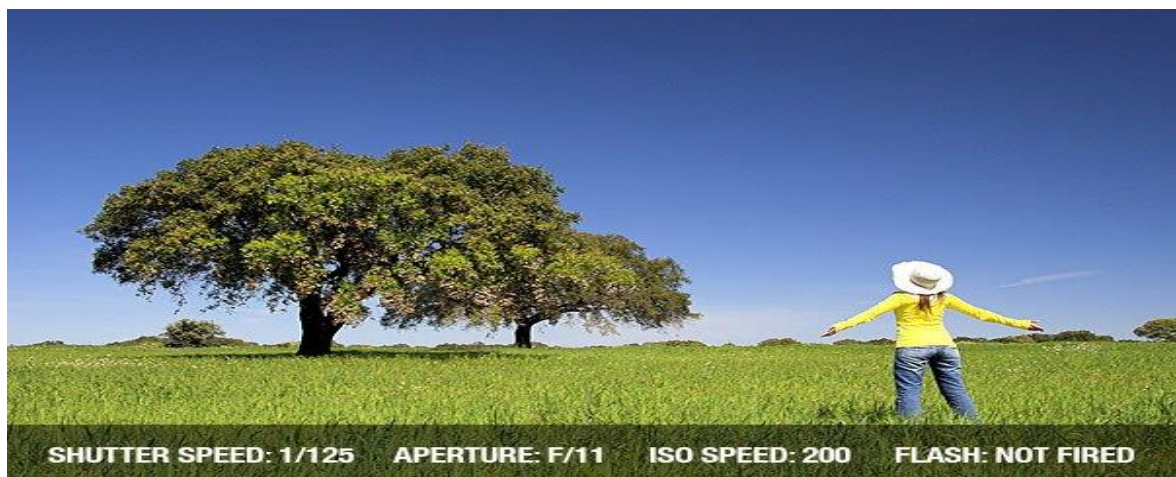
You must always use a tripod for this kind of shot so that the rest of your image remains sharp.

5. Use Water as a Mirror



Water in subdued light can create beautiful effects and reflections. The best time for this kind of shot is during the two “golden hours” which are the first hour after sunrise and the last hour before sunset. Put your camera on a tripod and set the mode dial to TV or S (Shutter-Priority) mode. Choose a slow shutter speed and allow the camera to choose the correct aperture. If you struggle to get a sharp image you can push the ISO up although ISO 125 is a good starting point.

6. Take account of People

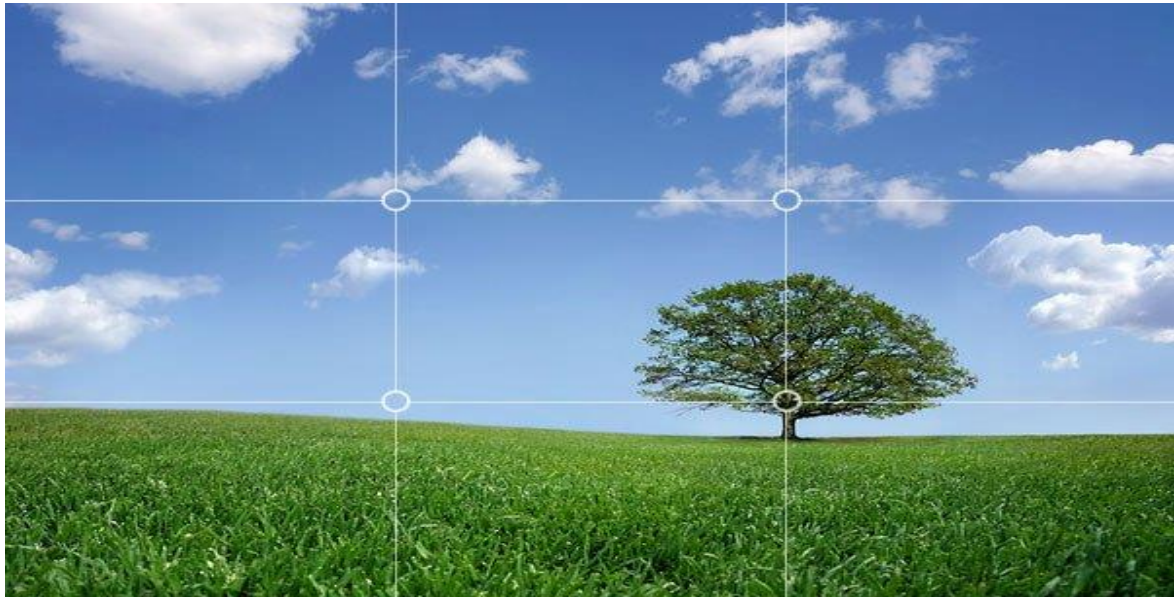


A landscape isn't just about nature; so why not include people?

A beautiful landscape can be complemented by a cute child or by a beautiful girl running or jumping through the flowers. Remember the rule of thirds and place the person in an off-center position to create interest.

Choose a fast shutter speed if you want to freeze the action or a slower shutter speed if you want to capture movement.

7. Compose in Thirds



To use the rule of thirds, imagine four lines, two lying horizontally across the image and two verticals creating nine even squares.

Some images will look best with the focal point in the center square but placing the subject off center at one of the intersecting points of the imaginary lines, will often create a more aesthetically composed photograph.

When a photograph is composed using the rule of thirds the eyes will wander the frame. A picture composed by the rule of thirds is usually more interesting and pleasing to the eye.

RECOMMENDED SETTING

When shooting during the day you can afford to use a smaller aperture of $f/22$ to capture a super sharp detailed image.

If you are trying to capture movement of water or of people and birds, then use a filter to reduce the amount of light going in and experiment with the shutter speed.

For water you want to choose at least 2 seconds or more and for moving animals or people start from $1/60$. You should always use a tripod for these types of landscape images.

RECOMMENDED EQUIPMENT

In bright light, you should always use a lens hood to prevent flaring. In addition, you may use a neutral density filter or a polarizing filter to reduce reflections and bring out the sky.

A tripod is essential if you want to take very sharp photographs and if you want to capture movement.

A beanbag is also useful to experiment with angles (such as shooting a landscape from the ground up). The use of flash will help illuminate shadowy areas in close range.

CONCLUSION

Landscapes are a real favorite with photographers and it's not hard to see why; you get to spend time in the outdoors and be with nature.

Having patience helps, as you may need to wait for the right lighting conditions, and there will be times when conditions do not cooperate.

Some landscape photographers will sit for hours to get one stunning shot for the whole day. That one magic shot makes the time worthwhile.

With patience and some practice, you will develop skill and be able to capture striking photos of your own.

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WEEK 15

3.2 PHOTOGRAPHING TABLE MODELS



Tabletop photography is a genre of commercial product/still life photography, which implies placing objects such as food and drinks, gadgets, cosmetics, etc. on the table. Primarily, commercial photography is associated with advertising and promotion of a product and tabletop photography is no exception. It means that this genre is intended for commercial shooting of the products. A table is used as a base.

White Background



Flat lay



Stylized



Why has tabletop photography become so popular?

Firstly, it's because of using such kind of product photography in Instagram. Secondly, arranging a tabletop photo studio won't take a lot of time and efforts, compared to the traditional product photography studios. However, image quality will meet the professional level standards. If you want to get more information on these photography types and setting up the studio, read on.

TABLETOP PHOTOGRAPHY TYPES

One can divide tabletop photography into three most popular types – flat lays, stylized and white background photos. Each one has its own purpose and peculiarities.

1. Flat lay Tabletop Photography



The flat lay tabletop photography is represented with photos that are taken from above, in other words, at a 90-degree angle. This style lets you showcase flat objects or a great number of them in the best way possible. For instance, it can be a pizza or a roomy suitcase, with the contents that can't be clearly seen from a side. Yet, if your object doesn't fall under one of these categories, a 45-degree angle would look better and more dimensional.

2. Stylized Tabletop Photography



The stylized tabletop photography immerses an object into its “natural” environment, thereby creates an authentic atmosphere. It can be a cup of coffee in the coffee shop or a book in the library. You should remember that it's hard to carry around all the necessary equipment thus, it's better to prepare a tabletop studio nook in advance.

3. White Background Tabletop Photography



Powerful equipment helps you achieve incredible results, but is it really that necessary for a table top photo studio? Keep in mind that photo is created by the photographer, not the equipment, so you can use cheaper analogs without losing on the image quality.

Camera Body (Nikon D3400)



If you plan to use your tabletop photography samples mainly on the web, then you'd better focus on the lenses, rather than on megapixels. Although megapixels improve the clarity of your images, they refer more to the printing than viewing visual content in digital space. If you're ready to invest quite a lot in a camera, but you still need something easy to use, these two options can satisfy your expectations. The first is a DSLR, the second is a point-and-shoot camera. Both variants prove that photographer skills more than a pricey equipment influence the quality of the shots.

Lenses (Nikon 18-55mm f/3.5-5.6G AF-S DX VR)



Since tabletop photography involves taking photos of the relatively small things, there's no need to buy the telephoto lens and the like. Nikon 18-55mm f/3.5-5.6G AF-S DX VR Nikkor Zoom Lens is an excellent reasonably priced lens that will be a perfect fit for beginners as well as for experienced professionals. It is a good universal lens, which is also suitable for lifestyle product photography.

Lighting Set



Having an expensive camera is crucial when you work in low light conditions or shoot moving objects, but it doesn't apply to tabletop photography. If you have a good SLR, point-and-shoot camera, or even a smartphone, it's more reasonable to invest in lighting than to buy an expensive body. You can, of course, save even more and use natural light. However, this approach will significantly complicate the shooting process compared to one with the lighting set.

Tripod (GWNNSH Compact Camera Tripod)

The main purpose of a tripod is to ensure the stability for a camera during the shooting process. This is especially important for still life photography, which calls for a clear and static image. If you aren't going to change the shooting place very often, then you don't need a portable tripod. However, I recommend looking for more versatile options that provide both stability and portability.



References:

How to Create a Picture Perfect Ecommerce Website With Product Photography by Haylee Reed

A Picture Is Worth a Thousand Sales: A DIY Guide to Beautiful Product Photography by Jeff Delacruz

WEEK 16

3.3 PHOTO-MONTAGE TECHNIQUES

A photomontage is a series of individual photographs. You take several photos of one subject and arrange them together to create a single image.

We find it normal to see only separate photos. We create most photographs in a fraction of a second. This short window in time is captured at one location.



A photomontage can contain any number of photos. There is no limit to the amount of time it takes to create this series of images.

There is also no limit to the variety of locations the photographer can use to make the photos. To be practical in the execution of a photomontage, some limitation is advisable.

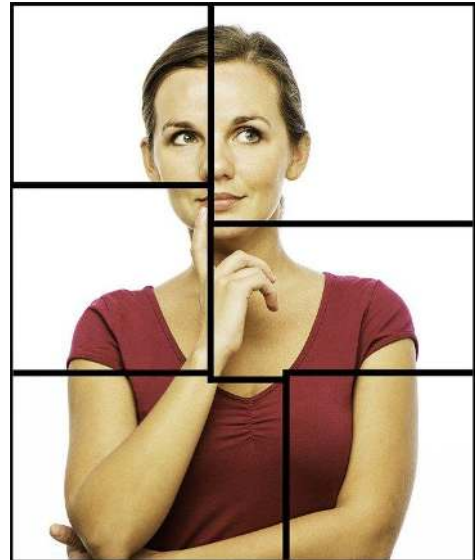


Photomontages are like cubism. There are no bounds of perspective or time. You can create a single artwork using several images of the same or many subjects. Doing this in a cohesive manner gives exciting results. Doing this without attention to essential visual elements can cause an ocular nightmare.

WHAT IS NOT A PHOTOMONTAGE?

Photomontage software and apps have become popular. It's easy to use a photomontage creator to break up a single photograph and create an illusion that it is many. This is not a true photomontage.

The results of such manipulations might look appealing. But a flat image created by breaking up a single photo has no real depth or artistic expression. Some people have a different definition of a photomontage. They arrange a collection of unrelated or semi-related photos together. This article is not about those.



Photomontages of Roy Harper in concert at His Majesty's Theatre, Auckland, New Zealand, March 1986.

STEP BY STEP- HOW TO CREATE YOUR FIRST PHOTOMONTAGE

In these steps, I encourage you to create a simple photomontage. Get familiar with the processes and have a workflow you are comfortable with. After that, I hope you will progress on to more imaginative works.



Photomontage of a woman appearing as she is being reflected in a mirror as she applies makeup.

WHAT YOU'LL NEED TO CREATE YOUR OWN PHOTOMONTAGE:

- Camera
- Computer
- Prints
- Board, Glue, Black marker pen

Choose Your Subject

You need to consider your subject for a photomontage. This could differ from your regular photography ideas. You should consider your potential to express space and time. For your first photomontage pick a static subject. The best one to choose is a subject you can return to and photograph more than once if you need to. Don't choose something that moves as this will add complications. You are more likely to be successful as a first-time photomontage maker if you start with a simple scene.

Plan

Calculate how you want to photograph your subject. Plan how many photos you want to make. You will need to think about how close you are to your subject and which lens to use to get the number of pictures you want. Using a standard 50mm lens will make compiling your photos easier. A wide-angle lens might create problematic distortion at the edges of the images. Aim to create a montage that will have 20 to 30 photographs in the finished piece. Having too many or too few images can make it more difficult to compile. For my photomontage of the bridge at dusk, I wanted a minimal number of images. I used only seven photographs in this montage. It was very difficult to put them together and keep the integrity of the picture.



This photomontage was difficult to compile as I wanted to use a minimal number of photos. Having made the photos from three different positions this complicated thing.

Photograph More Than You Need To

Make each photo count. Plot out a grid in your mind and follow through so you are making sure to record every part of your subject at least once.

Start from a corner most of the time. Overlap your photos. If you are taking pictures from left to right, look at something which appears near the right side of your composition. Take the photo and then move your camera to the right. Compose your next picture, so the same thing is still in the composition, but towards the left of the frame. It's good to have the option of including photos which overlap and are not all in straight lines. This gives you more flexibility when you come to lay the photomontage out.

Don't go crazy and take hundreds, but make sure you have every part of your subject covered. Try to make individual creative photographs of each part of your subject. Aim to compose them with a small difference.

Photograph an object or part of a scene many times. Place it at the top and the bottom of the frame or at each corner. Doing this will give you more options as you are laying your photomontage out.



A photomontage to help illustrate this step-by-step tutorial.

Look For Lines in Your Composition

Using vertical, horizontal, and/or diagonal lines will help. Look for lines, straight or curved, as you are making your photographs. Be mindful of how they could appear in your finished photo montage.

Making use of these lines will help hold your montage together and make it more attractive to look at. If there is no flow of lines through your finished piece, it will look muddled and confusing.



I highlighted in red the lines I followed to create the photomontage. Try to avoid making a montage that's too complicated at first.

Manage Your Images Well

Use Adobe Lightroom and Photoshop to compile my montages on a computer before having the photos printed. You can use any imaging software that allows you to have separate images on many layers.

Load all the photos you made onto your computer. Do not delete any of them, even if there are technical flaws. You might use one of them to fill a gap.

Look through my series of photos and pick out the strongest images. Photos that will stand alone as good pictures whether they are part of a photomontage.

Make a separate folder for these and place them in it. Next, choose the bulk of your photos you think will be best suited to compose your photomontage. Imagine where the edges will be and pick images to fill your composition space. Place these in another folder. Place the remaining photos in a third folder.

Resize Your Photos

Resize your photos based on how large you want your finished photomontage to be. Keep your resolution at 300 dots per inch (dpi.) This will mean the size is the same when you get them printed.

Decide roughly how many photos will make up the width and how many the height. You can size your individual images to fit into the dimensions you want. You can alter this photomontage later, but it's good to work with a base size from the start.

Always compile photomontages using .jpeg images with small compression. This varies depending on the number of photos you are working with and the processing power of your computer.

When creating larger photo montages, it becomes more important to be well organized. Sizing your photos carefully will help to achieve a steadier workflow.



Create Your Photoshop 'Canvas'

Create a new 'canvas' of a suitable size. Make sure the dpi matches the dpi of your photos. Don't be too concerned about the correct canvas size. You can always alter it later to suit your needs if it's too small or too large.

Import Your Photos

Export the photos from the first two folders and import them to Photoshop by going to File > Scripts> Load Files To Stack. Using this option, you can load all the images you need into one document as separate layers.

If you are using this method, select all the layers. Then drag and drop them into the document where you create your empty canvas.

You need all your photos to be on their own layer in the document you have created. At this stage, they may all appear to be stacked on top of each other, unlike this image.

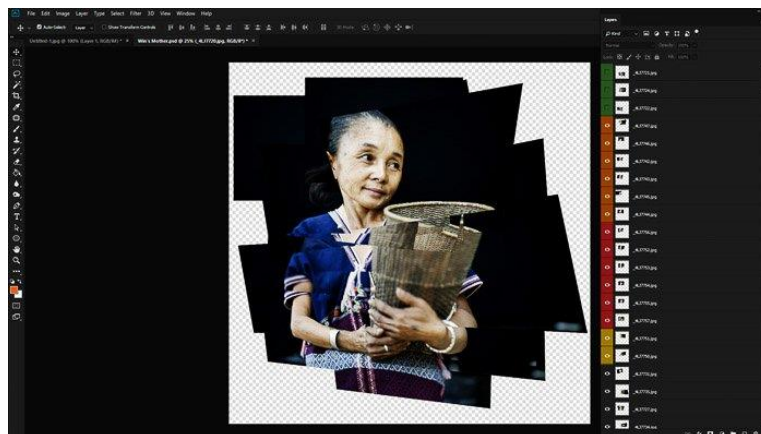


Arrange Your Photos

Start to drag and drop each photo roughly where you want it. If you can color code each layer, it is a good idea to do so. I usually use three colors. One for the images on the left, one for the images that make up the middle and one for those on the right.

When I am working on large photomontages, I will make separate groups in the layers panel and add layers to them. This allows me to hide all the images in one group, which can make the workflow more efficient. Move your photos around and position them so they resemble the whole subject you photographed. Some images will still appear stacked on top of each other. This is okay.

Now you have all the photos roughly in position. This is when the real creative photography fun begins. It's time for you to free your imagination. Move the photos around and experiment as you like. Think outside the box! As you work, parts of images you want to see might be hiding below another layer. You can move each photo higher up or lower down in the layers hierarchy to suit.



This can take a long time the first time you try it. Don't expect to complete laying out a montage the first time you sit down to do it.

If a series of photos is not composed well, the results will not be attractive. You must be careful to lay down your photos in a manner that is pleasing to look at. If you do not, the results can appear muddled, ambiguous, and unattractive to viewers.

The way I achieve this is to compile my photos with sharp lines running through my montage. These lines will help hold the images together and make them appear cohesive.

Hide Layers to Finish Your Photomontage

As your photomontage begins to take shape, you can start to turn off the layers you are not using. Don't delete them, only hide them.

Compiling a photomontage requires flexibility. Be open to your creative expression. As you move photos around, your montage will keep changing. Being able to hide or show individual images allows you to be more innovative with your layout.

You might see gaps in your montage at this point. Check your pictures in the third folder you created but did not import any photos from. You may find a photo to fill your gap. If not, be creative and duplicate an image you have already used. You can also leave the gap blank if it looks good to you.

Give yourself plenty of time for compiling your photomontage, but make sure you finish it. This can be a never-ending process if you let it be.

Of course, you can always revisit a montage later and compose it in a different way if you like.

Printing Your Photos (a Fun Optional Step)

You do not have to print and paste up your montages. As digital artworks, they are quite acceptable. Printing the photos takes them to another dimension, though. I find that it makes them even more special.

You need to print the photos you have used and are visible in the finished layout if you decide to have a tangible copy. You can have them printed out as individual photographic prints in a quick and easy way.



Decide How to Adhere Your Prints

Sticking the prints down can be a difficult step. Using glue can be very messy, and it is easy to damage overlapping prints.

For many years I have used a roll of double-sided adhesive paper. Apply this to each image before you start laying them out.



If you are using contact glue you will need to apply this as you are about to stick your prints down. I recommend you lay out your prints first before you start to stick any down. This will allow you to see an impression of how your photomontage will look.

You must be careful not to get excess glue on the board or your other prints. Before you stick your prints down, I blacken the edges of the prints with a thick marker pen. Having the edges dark makes them less visible on the finished photomontage.

Lay Out Your Prints

When you have all your prints ready, begin to lay them out on your board. The easiest is to have your computer next to you. This allows you to use the digital version of your photomontage for guidance.

Turn all the layers off except the bottom one. The visible layer will be the first print you place on the board. Turn on the next layer and place the print on the board. Work from the bottom up and make sure each print you lay down is one that overlaps a print you already have on the board.

During this first laying out of the photographs, do not stick any of them down. The prints will move around. You will knock and nudge them as you are positioning other prints. The whole process is quite kinetic. You could use masking tape to hold each print in place.

As you are laying out your prints, step back and have a look at your work from a distance. If you can get up above the table you are working on, this is even better.



Being able to see your montages from a distance as you compile them will help, especially if they are large.

Stick Your Photomontage Down

Once you are happy with your photomontage layout, it's time to glue them. Start from a corner with a print that is not overlapping any others. You must make sure whatever is under each one is the board, or another print already stuck down.

Don't glue a print that supposed to have another behind it. This could ruin the look of your photomontage.



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WEEK 17

4. INTRODUCTION TO COMPUTER-GENERATED PRESENTATION

As more commands install computer equipment, computers assume a larger role in the production of art and in the presentation of it. Inevitably, you will interface with a computer.

Because so many software programs exist, and Navy shops have not standardized the purchase of computer hardware or software, it is impossible to cover in detail the steps required to operate the computer system in front of you now. The best source of information remains the owner/operator manuals.

Personal computers may be used to create, store, and deliver graphical presentations. With computer-generated combinations of the five media (text, images, sound, video, and animation)—that is, multimedia presentations—the effectiveness of message delivery can be greatly increased. The basic tools are:

(1) a personal computer; (2) presentation software; and (3) a projector to enlarge the monitor images for audience viewing.

Use of this new method has grown rapidly in the business-conference world but has yet to gain widespread acceptance at medical meetings. We review herein the rationale for multimedia presentations in medicine (vis-à-vis traditional slide shows) as an improved means for increasing audience attention, comprehension, and retention. The evolution of multimedia is traced from earliest times to the present. The steps involved in making a multimedia presentation are summarized, emphasizing advances in technology that bring the new method within practical reach of busy physicians. Specific attention is given to software, digital image processing, storage devices, and delivery methods.

TIPS FOR ABETTER COMPUTER GENERATED SLIDE PRESENTATION

Presentations given and developed for a computer and data projector are different than traditional slide or overhead projector presentations. The primary difference is that all images, text and graphics are incorporated into one file. This means that photographic images such as gels, photomicrographs and specimens must be scanned and imported into the presentation software in order to show them in your talk. Electronic presentations offer many advantages over other forms of presentation media, but there are some limitations as well. The most significant limitation is resolution. Because of this limitation the rule is “less is more”. Keep everything as simple as possible.

Below are some pointers that should help you produce a clean, legible and professional presentation.

Software Selection

All presentations will be shown using Microsoft PowerPoint, version 7 for Windows. It is very important to either create your presentation in that version or convert your older version Windows or Macintosh presentations prior to the Conference. Many problems can arise during this conversion. Most, if not all can be fixed but they take time.

Page Setup

Your presentation should be sized for an on-screen show, not letter or 35mm slides. This can be easily changed under the "File/Page Setup menu". This should be done prior to creating your presentation graphics because if it is done after, your scanned pictures, graphics, and text margins will be stretched and distorted.

Let the Audience Know Where You Are Going

The more you help an audience know where you are, the more they will stay with you and learn. List the key points; use topic headers at the top of slides; use full screens to announce major presentation transitions; post conclusions.

Font Size/Style

As a general rule type sizes below 14 point in size are difficult to read on the projected computer image. Try to use 18-30 point type for body text and 30-44 point type for titles. A simple test for readable text is to stand away from your computer monitor at least six feet. If you can read the text it is large enough for the big screen. The type size difference between the title, subtitle, and body copy should diminish by at least 20% in size so that the eye can distinguish the differences in size.

Text Slides – 6 x 6 rule

No more than 6 words per line and 6 lines per slide. This is also a good rule for tables as well. The presentation should not be a report; a few words or a phrase to emphasize an idea is all that is needed.

Background Selection

Contrast is the key to a good background. Dark Background, Light text or Light Background, dark text. For the Conference presentation stick with a simple background such as dark green or blue. Some shaded backgrounds show banding when projected through a data projector but a blue to black shade will look good if you desire a shaded background. See examples below.

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Save a slide as a separate image file". www.support.office.com. Retrieved 2018-01-10.

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Computer-generated graphical presentations: Use of multimedia to enhance communication

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<http://engconf.us/information/presenter-and-author-guidelines/tips-for-a-better-computer-generated-slide-presentation/>