

## Specialized Finishes

### Do-It-Yourself Basic Furniture Refinishing Course

#### Class 1 of 4

#### Personal Safety, Tool use, and Cleaning of substrate

##### ·Personal Safety:

Personal protective equipment

Hand Protection

Respiratory protection

Eye Protection

Entire body protection if needed

Partner protection

Ventilation

Workspace organization (Trip hazards, Head bashers, Eye pokers, Shin whackers)

##### ·Tool use and more safety:

Scrapers

Putty knives

Screw drivers

Razor knives

Hammer

Nail set

Hand Masker

##### ·Maintaining Cleanliness:

Soap and water

Vacuum

Dust brush

Solvents

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### Do-It-Yourself Basic Furniture Refinishing Course

#### Class 1 of 4 (Cont.)

#### Personal Safety, Tool use, and Cleaning of substrate

##### ·Cleaning current project substrate:

Determine factors that dictate what is used to clean the surface even before sanding

Food

Grease/oil

Human/pet residues

Oxidization

Aged dust and dirt

Determine required method for proper cleaning

Soap and water

Solvents

Lacquer thinner

Acetone

Denatured alcohol

Determine tools used for cleaning

Cotton Rag

Cellulose Sponge

Scotch-Brite pad of various abrasive levels

Scrub brush

##### ·Goals

Clean project

Allow to dry to promote proper sanding

Discuss thoughts on desired finishes

##### ·End of Class 1 of 4

## Specialized Finishes

### Do-It-Yourself Basic Furniture Refinishing Course

#### Class 1 of 4 Overview

##### Safety, Tool use, and Cleaning of substrate

Thank you for attending Specialized Finished Do-It-Yourself Basic Furniture Refinishing Course. This summary is for the student to reflect on the lessons taught in class.

**Personal Safety:** Safety is our number one priority. The proper use of personal protective equipment is necessary to defend us from environmental contaminants.

Gloves protect our hands from solvents and paints soaking into our skin.

Eye protection is to ensure we can use our eyes for the rest of our lives.

Respiratory protection is to keep any unwanted particles from entering our bodies potentially causing respiratory discomfort or even illness when overexposed.

Even clothing is a protective layer.

**Tools safety:** Tool Safety is the single most important portion of any task.

Proper body and hand placement can determine the outcome. You can quickly hurt yourself with just a putty knife.

Proper tool for the job. Rarely if ever do we use the wrong tool for the job. If we use the wrong tool for the job, we risk serious damage and injuries to yourself, others, and the project. If you find yourself with only the wrong tool, then take extra caution.

Use the right tool for the job. Proper tool use is essential for a clean desirable end-result and to prevent injury. While performing any aggressive assignment with a tool like a scraper or razor knife take care in all aspects of the task immediately set forth.

To help safeguard against damage to the project and of injury to you or others practice deliberate mechanical movement with finesse. Always pay attention to what is happening right now.

(All of my injuries are a result of thinking about something else while doing stuff that can hurt me)

Maintaining cleanliness: Discuss maintaining cleanliness throughout the whole project

**Cleaning:** Choosing initial cleaning of the subject is important. Most projects may use simple cleaning tactics while others may require a more aggressive approach such as chemicals, tools, or abrasives.

Only use as much cleaning solution as you wish to clean up.

Ensure the removal of all dirt, grease, food, and whatever else you may find.

Thoroughly rinse subject without soaking.

Allow to dry. Dry time is determined of the cleaned surface. More porous surfaces will take longer to dry.

## Specialized Finishes

### Do-It-Yourself Basic Furniture Refinishing Course

#### Class 2 of 4

New finish selection, tape 101, sandpaper 101, priming/sealing, touch-ups, fillers, and joint sealants

#### ·New finish selection

Determine the best durable finish with minimal amount of work for each individual participant.

Color selection

Determine process to achieve desired finish

#### ·Tape selection and uses

Blue

White

Delicate/Frog

#### ·Tape Application

Demonstrate how to pull tape from the roll without bending it

Demonstrate how to ensure edges are properly pressed to ensure no bleed through

#### ·Sand-paper selection and uses

Purple

Yellow

Garnet

Open-Coat

Aluminum-oxide

Emery cloth

Scotch-Brite

Steel wool

#### ·How to cut and fold sandpaper

Trifold

Display reason for trifold

Paper manipulation for rounds and scrolling

Squares

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### Do-It-Yourself Basic Furniture Refinishing Course

#### Class 2 of 4 (Cont.)

New finish selection, tape 101, sandpaper 101, priming/sealing, touch-ups, fillers, and joint sealants

·Discuss desired finish possibilities

·Direction to sand

Sand with wood grain, or in the direction to be painted

Sand from bottom to top eliminating the need to continuously remove dust

Do not sand in the pile of dust left behind

Sanding dirt left behind will result in bad scratches

·How to position the body and hands while sanding

Tai Chi type movements with flow

Understanding the different methods of sanding

Hands

Wood Blocks

Foam Blocks

Machine

Using fingers for bracing guides while sanding

·Priming/sealing necessary areas

Selection of primer or sealer to promote proper adhesion of finish product

Lightly sand and remove dust where primed/sealed

Spot priming ensuring sanding of lap after drying

·Staining touch-up

Instruct on ways to develop stain touch-ups, purchase or self-manufacture

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### Do-It-Yourself Basic Furniture Refinishing Course

#### Class 2 of 4 (Cont.)

New finish selection, Tape 101, Sandpaper 101, Priming/Sealing, Touch-ups, Fillers, and Joint Sealants

#### ·Fillers and Joint sealants

Caulking technique, cutting tube, tape caulk, free hand, fingering/tooling

Discuss proper fillers vinyl, silicate, putty

Discus proper joint sealants urethane, siliconized latex, (Alex Plus vs. Big Stretch)

NEVER SILICONE

#### ·Goals

Understanding more of the preparation process.

#### ·End of class 2 of 4

## Specialized Finishes

### Do-It-Yourself Basic Furniture Refinishing Course

#### Class 2 of 4 Overview

New finish selection, Tape 101, Sandpaper 101, Priming/Sealing, Touch-ups, Fillers, and Joint sealants

**New Finish Selection:** Determine your desired result to decide if we paint or stain/clearcoat. A clear coat natural look or a painted surface.

**Tape 101:** Tape areas for protection if necessary. Tape selection is dependent on the substrate first, and type of activity happening on top, second.

Tape choices can seem endless. We will focus on the three most used in this industry. Taping is only needed for protection to prevent scratching or paint overlapping.

3M Blue Painters tape works best on smooth and semi smooth surfaces. Not raw stone or raw wood. The glue is designed to block out bleeding, release properly over time, and help prevent any curling from finishes drying and pulling. Other brands may be used but be aware not all are the same.

Frog tape is the new fancy expensive green tape. It works very well. The glue will safely release after a longer period than other brands but, 3M Blue Painters tape is more than sufficient for our tasks.

White masking tape has glue that tends to pull paint from surfaces when removed. It is difficult to remove because it is too sticky. White tape is used for permanent protection. Where care is of no concern if it leaves glue or damages the substrate. White tape can leave a thin film left from the glue even though it appears clean which can cause several problems for the finish stages.

Duct tape comes in a wide variety. The masonry duct tape has the safest glue of most other types. Other types Duct types are extremely sticky and tend to leave glue and residues as white tape does. Duct tape is more extreme. If the protection of duct tape is required on a finished surface, ensure you place a "safer" tape down first. Then place the duct tape on top.

Handling tape and care for the roll is critical to maintain an efficient and quality flow. Tape can bend side to side while handled. When removing tape from the roll use the fore finger and thumb to grasp the strip in the center. Using the other hand loosely place the roll in a loop made by the thumb and forefinger. While pulling the tape from the roll make sure to pull straight and from the center. Failing to do so will prevent a straight tape line. The tape will have bent.

Placing tape in a straight line is no magical trick. If, carefully removed from the roll the tape should be straight. Begin with the leading hand and place the end where to begin while the other hand is holding the roll keeping the tape slightly taught. After placement gradually use the forefinger on the leading hand and push the tape down gently using the hand with the roll as the guide while pushing the tape to the substrate. Looking a little ahead while pressing with the leading finger. Look at the goal not the past.

Once the tape is in place use a 1 ½ flexible putty knife to gently push the leading edge of the tape down ensuring a proper seal to prevent bleeding.

Remove the tape by starting a corner up. Glue side up pull at a slow tempo at an angle leading forward and away from the surface at about a 45-degree angle. This may prevent any bridging. When paint “Bridges” it spans a gap or is too thick from tape to painted surface which can lead to fresh malleable paint peeling from the painted surface.

Remove tape when the paint is dry to the touch. This can prevent the tape from ripping while removing. The paint had become too dry and is hard the tape becomes hard and brittle.

**Sandpaper 101:** Decide on the type of sandpaper that will produce the best outcome.

Open-coat, Garnet, and aluminum-oxide papers are good for raw wood. To use these on painted and finished surfaces will result in clumps forming on the paper causing unwanted burnish marks in your prepared surface.

The Purple and Yellow papers that tend to cost a lot will perform best on painted and finished surfaces. These are designed to prevent clumping. If clumps do form, they are easily removable.

Emery-cloth is for raw metals

Scotch-brite pads are inconsistent in the scratches but it used sometimes for areas where paper cannot conform properly. If used it is best to wear out the pad before use to eliminate any large chunks thus reducing the risk of gouging and burnishing. Rub it on concrete or against another pad to soften it somewhat.

Cutting and folding sandpaper for efficient and reliable results. A Tri-fold application is the most efficient use of a piece of paper. Fold paper in half length ways and crease down the center. Hold the paper with the fold up right and the two ends in one hand. With the other hand insert the flexible putty knife inside the fold and use the side to cut the paper in an upward fashion working from one end to the other making a clean cut.

With a half of sheet fold the paper into thirds with one third as an inside flap. Make sure the fold and tuck it tight and symmetrical to ensure a stable proper fold that will maintain vigorous movement without unfolding mid-stroke.

Keeping your body, arms, hands, and fingers all in one fluid motion with light to medium pressure allowing the paper to do the work. Do not force it. Long smooth strokes from one end to the other trying to prevent lapping too much.

Begin sanding from bottom to top. This will dust falls onto what is already sanded. Then only one cleaning is required. If sanding from top to bottom the dust will collect in the area to be sanded next requiring constant cleaning.

**Priming/Sealing:** Prime or seal any areas with raw substrate like wood or metal. It is necessary to prim/seal areas that have multiple layers sanded through. Priming/sealing provides a uniform surface for the finish to adhere too properly and prevent any halo telegraphing.

Prepare the primer/sealer by mixing thoroughly with a stick preventing bubbled from forming.

It may be necessary to add a little thinner to loosen the material thus allowing proper flow from the brush. If the material is too thick it will not flow from the brush evenly and not lay down while drying leaving highs and lows when dried.

First apply stain touch-ups before clear coat sealer and allow to thoroughly dry.

Apply primer/sealer keeping with a wet edge to help prevent lapping.

Allow to dry then lightly sand any freshly sealed areas.

**Fillers:** Fillers are used to fill holes and consist of several materials. Make sure to choose the correct filler.

Spackle comes in wide varieties most are silica and vinyl mixed for fast drying and minimal shrinkage.

Putty can consist of water based or oil based. Both use a reducer either a polymer or an oil and a particulate for color and body. Neither can be sanded and both are messy.

Wax is just that and cannot be sanded or painted over.

Bondo is used for sculpting or filling large holes. It can be tinted with oil friendly colors. Once dry it may be painted or stained and clear coated.

To fill a hole only apply the amount needed for the individual fill. Using the flexible putty knife firmly push the putty into the hole while sliding the putty knife across in a 20-degree angle using the end of the knife not the side allowing the filler to slightly bulge out to dry. If filled too shallow there may be shrinkage.

Make sure to slightly over fill to allow for shrinkage and the remaining will be sanded before priming/sealing.

When dry, lightly sand with the direction of the grain to make clean and flush.

If it is a painted finish, then it is required to prime the filler using a small brush making linear strokes. Lightly sand when dry.

If the finish is a clear coat just ensure there are two coats on top of the filler.

**Joint Sealants:** The more familiar term for joint sealant is caulking.

Latex caulking usually is modified with silicone. It is water clean up and the most common type of joint sealant used in residential construction. Can be painted directly on top.

Urethane joint sealants are solvent based and toxic. These tend to be used for joints between unlike substrates that move at different rates over time and temperature. Can be painted directly on top.

Silicone is the enemy. If silicone is needed, then use urethane. Silicone sticks to nothing and comes off everything. The seal will break over time leaving a gap between the sealant and substrate that can not be seen by the naked eye and will allow moisture to pass through. **DO NOT USE SILICONE**

Joints sealants come in various containers. Some are in a toothpaste like tube that the tip may be cut to size and dispensed without any extra devices. Most of construction is used a tube that fits into a caulking gun.

Using a new razor knife cut the tip of the tube off at about a 30-degree angle until the desired orifice size is reached. Usually about 3 to 4 millimeters.

Place the tip of the tube at the beginning and slowly squeeze the large trigger. Watching as the material is dispensed. Moving in a stable fashion keeping the tip pressed into the joint while squeezing the caulk gun trigger.

Once the desired distance is achieved place a wet finger at the beginning and slowly press the caulk into the joint removing any excess along the way.

Use a wet rag on your finger to clean the excess. Not soaking wet. Too much water will cause the caulking to get watered down and when dried it may crack.

Allow caulking to dry overnight depending on thickness, temperature, and humidity.

## Specialized Finishes

### Do-It-Yourself Basic Furniture Refinishing Course

#### Class 3 of 4 (Cont.)

Paint Brush Choice, Paint Brush Priming, Transferring Finish Material, Finish Material Preparation, Environmental Condition, Paint Brush Handling Technique, Finish Coating Application, Paint Brush Cleaning

#### ·Paint brush choice

##### Water-Base

Latex product

Acrylic product

Clear finish

Solid body finish

##### Oil-base

Clear and solid body use same brush

Stain

#### ·Paint brush priming

Water

Mineral spirits

#### ·Transferring finish coating

Thoroughly mix material in retail container

Properly transfer finish material into a working bucket

Straining

Cone strainer

Bag Strainer

#### ·Environmental conditions

Temperature

Humidity

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#### Class 3 of 4 (Cont.)

Paint Brush Choice, Paint Brush Priming, Transferring Finish Material, Finish Material Preparation, Environmental Conditions, Paint Brush Handling Technique, Finish Coating Application, Paint Brush Cleaning

·Finish coating preparation **STIR ONLY DO NOT SHAKE**

    Thinning

        Water

        Reducer

·Paint brush handling techniques

    Approaching the subject

        Visualize the path

        Work in to out

    Demonstrate the job of the bristle ends

    Demonstrate mechanical yet fluid movements

·Applying finish coating to the brush

    Determine how much is needed on the brush for the immediate stroke

    Demonstrate how to work the material to the edges to cut in

    Demonstrate how to paint the field maintaining a wet edge

    Demonstrate how to minimize brush marks

·Allow to dry

·Goals

    First coat of finish coating completed

·End of Class 3 of 4

## Specialized Finishes

### Do-It-Yourself Basic Furniture Refinishing Course

#### Class 3 of 4 Overview

Paint Brush Choice, Paint Brush Priming, Transferring Finish Material, Finish Material Preparation, Environmental Conditions, Paint Brush Handling Technique, Finish Coating Application, Paint Brush Cleaning

**Paint Brush Choice:** Paint brushes come in a wide variety of sizes. Some are angled some are squared. There are several different materials paint brush bristles can be made from.

Latex paint brushes should be 100% nylon for the best results.

Acrylic clear-coat brushes should be a blend of nylon and polyester for best results to minimize bubbling.

Nylon brushes used in acrylic clear coats will produce bubbling in the end finish and may dry before popping and leave an undesirable feel.

Nylon Polyester blend brushes may produce the same result if used in latex paint.

**Paint Brush Priming:** Submerge the paint brush in water and then fling it out to remove excess water. Wetting the paint brush before dipping into the paint will prevent the brush from drying out with paint in it. Allowing inside the ferule to get moist will make it easier to clean also. Paint starts drying as soon as it touches a dry surface.

**Transferring Finish Material:** Read the back of the can first to become more familiarized with the product.

It is necessary to remove the desired amount into a working bucket. Use the brush to clean the lip of the paint can. The can the paint comes in from the store is not user friendly to work out of with a brush.

**Finish Material Preparation: Stir Do Not Shake.** Shaking may cause bubbles that may not float to the top to pop. Once the can is opened stir until mixed evenly using a wooden stir stick from the store. If done properly this may take up to 15 minutes with primers and white paints that contain a lot of solids. There are drill attachments that work well just be careful it can cause quite a mess.

Environmental Conditions will affect the drying time and flow. Colder temperatures cause fluids to flow slowly also preventing proper drying. While temperatures too hot may cause the material to dry too fast not allowing to keep with a wet edge ending in severe lap marks, gumming, and improper adhesion. The paint will dry on the outside too fast before the inside can release the moisture resulting in an unwanted crackling effect.

To manipulate the adverse environmental effects add reducers/thinners. Reducing or thinning the paint will allow it to flow from the brush easier, stay wet a little longer, and allow it to lay down with less brush marks. With the right paint and right conditions, a brushed finish will leave zero brush marks.

Properly thinning paint is an art. They type of paint. The temperature. Humidity, and sometimes the barometric pressure.

Thinning is done with clean ambient temperature water.

Reducing is done with a product called a latex extender.

With temperature in the 70s Fahrenheit and humidity low in the 20s or so, it is required to thin most paints around 10%. Most paint manufacturers say no thinning required. This is Colorado we are special here. Do not apply paint in direct sunlight. The list goes on about what type of problems will arise.

Place the strainer of choice over the cut pot and pour desired amount of finish material into the strainer.

Pour desired amount of thinner into the strainer.

Remove the strainer place into a bucket of water to wash

Mix very well with a stick

**Paint Brush Handling Technique:** Hold the brush in your fingers like a huge pencil. Your forefinger should ride on the trailing side of the ferule. Refrain from using the brush sideways.

**Finish Coat Application:** Dip the tip of the brush into the paint, only as much as needed for the immediate area. Tap both sides of the brush inside the bucket to prevent drips. Once ready to apply paint to the subject, begin a smooth mechanical stroke as the brush is placed near the projected edge. Once the paint seems to be running out of the brush, start over the same path pushing the paint left from the first stroke into place and smoothing it all out at the same time. Repeat the process keeping a wet edge.

**HINT:** Plan the path to paint to ensure to most possible way to keep with a wet edge and always paint from the inside out

**Paint Brush Cleaning:** When finished painting return the unused paint/finish into the retail can. Using the brush to remove any excess. Use the lip of the can to remove any more paint left in the brush and immediately submerge into water. Very warm water is ideal. Hot may cause the paint to dry into a gum on the brush and cold will not allow the paint to break up to rinse away cleanly.

Very warm water with a little Dawn concentrated dish soap will clean the brush thoroughly removing all polymers.

With the brush in the water begin to slowly swish the bottom of the bucket firmly pressing the sides of the brush down. Back and forth without splashing the water into the eye.

If there is any paint that is beginning to dry on the bristles use a stiff plastic scrub brush inline with the bristle to remove any chunks.

Rise at least once more when the brush appears clean.

There are several ways to remove the excess water from the brush after cleaning. My method of choice is to go outside onto gravel or dirt, extend one foot in front and point the toe into the air. Holding the brush tap the skinny end of the metal ferule on the toe allowing the bristles to flop under the shoe. Repeat this until very little water remains and allow to air dry.

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### Do-It-Yourself Basic Furniture Refinishing Course

#### Class 4 of 4

Prepare surface to apply second coat of finish, prepare finish coating, apply second coat of finish, summarize everything learned

·Prepare surface to apply second coat of finish

Remove all dust

Ensure there are no greasy hand marks etc.

Light soapy water if needed

Allow to dry, Hair dryer

Scuff sand with a worn fine or very-fine 3M sanding sponge or pad

Remove dust

Dust brush

Vacuum

·Prepare finish coating as in class 3

·Apply second coat of finish as in class 3

·Allow to dry

·Discuss everything learned in class outline

·it is recommended that the piece stay overnight to allow dry before transport. In some cases, pieces may be moved within an hour or so. We will schedule a convenient pick up time if necessary.

·Goals

Completion of project

·End of class 4 of 4

## Specialized Finishes

### Do-It-Yourself Basic Furniture Refinishing Course

#### Class Overview: Class 4 of 4

We had a class overview in this class outline.

By the end of class four participants should have enough information and “Show How” to feel confident to complete their own tasks.

For me painting has always been fun. Sometimes the journey to the finish is not as pleasant as I would like. For instance, I really do not enjoy caulking. The result is what I strive for. The WOW factor is why I do this. I love it when people say wow when they see their freshly finished stuff.

The satisfaction of completing a project that will change the entire mood and surroundings.

Mood can affect health.

Thank you very much for attending our class,

I hope you had fun mostly,

Shawn Turner

Specialized finishes

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