GRADIENT MESH TUTORIAL

HOW TO DRAW THE RED BELL PEPPER

Presented By Brooke Nuñez of Lifeinvector.com

GRADIENT MESH TUTORIAL
-INTRO TO THE MESH-

The gradient mesh tool is a complicated but gorgeous feature in Illustrator. It has made flat shapes come alive to be 3d-like works of art. Just by adding a grid of anchor points, pictures become suddenly "real". It's an awesome tool that most digital artists find intimidating - with good reason.

Gradient meshes are very complex & tedious compared to other tools in Illustrator. They require all the time & patience you can give them. But as difficult as they may seem, it won't take long before you gain control. Think about how much you've learned since first using the pen tool! Remember that practice always makes you more proficient. Just do your best & have fun.

Good luck & happy rendering!

GRADIENT MESH TUTORIAL
-BEFORE YOU START-

The most important thing of all is choosing the right image to render. The gradient mesh isn't an easy tool, and requires a lot of patience & time - so you'll want your subject to be interesting. It should be something worth taking the time to render, something you know others will find pleasing to the eye, and not just technically accurate.

At this point I would like to stress the fact that you may want to use **your own** photography or sketches as reference. You don't want to fall into any legal issues later, or receive any negative comments from someone who might recognize your source.

If you're rendering directly from a photo, before taking the picture it is important to consider your composition, consider approaching your subject at a different angle, and consider your lighting. (Remember, make it **interesting!**) Also, once you've got digital files of your photos, you may want to retouch them in Photoshop before you begin rendering. (You don't want to create a dull mesh in Illustrator, do you?) Don't be afraid to brighten up your image, remove unnecessary shadows or objects, or even change the color scheme to make it more exciting.

If you plan to render over a sketch, I'd recommend you find other photographic resources to use for proper texture & lighting. Remember, the gradient mesh is an instrument for realism. The more accurate to life your references are, the more precise & realistic your drawing will be.

Another thing to always keep in mind is that there is no "right" way to go about a mesh rendering. There are dozens of techniques to use, you really can't go wrong. Don't be afraid to experiment & find a method that's best & easiest for you.

GRADIENT MESH TUTORIAL
-MESH BASICS-

There are only a few parts to the mesh tool that you should become familiar with. You already know what anchor points are, but within a mesh they work a bit differently. They aren't just to create an outer shape anymore. They are the basis of all the color. This is something that makes the mesh so interesting, the way the colors radiate from each anchor point & blend into one another so perfectly. There are only a few ways to manipulate & control this blending illusion, and that is with the anchor "arms", with the in-between lines, and with the anchors themselves. [See (A)]

One negative about the mesh tool is that it is irreversible. That is, once your shape contains a mesh, there's no going back. (Unless, of course, you "undo" enough.) Yes, you can always delete anchor points & mesh lines, but you can't revert back to your original editable shape. The solution is to simply make copies of your initial outlines, that way you have something to refer back to in case you need to start over.

There are two ways to add a mesh to a shape. The first is by referring to the Object menu & choosing the "Create Gradient Mesh" option, which will create the most even solution to your mesh. The second is by simply using the mesh tool and clicking away at your shape, freehand, which will allow you to have more general control. I always prefer the latter, but that is up to you.

One final tip – keep it as simple as possible! Always, always, always keep in mind that it is easier to add mesh points than to delete them. You don't want your mesh to turn into a mess, after all!

Ready to start?

GRADIENT MESH TUTORIAL
-LET'S GET GOING ALREADY!-

I have taken the time to create a tutorial suitable for mesh-beginners. It was written under the assumption that you, the reader, are already proficient in Illustrator, but are interested in expanding your limited knowledge of the gradient mesh. Please note that this is only one technique which helped me become familiar with how it works. Hopefully it will be of some assistance to you as well!

For this tutorial, I have chosen to render a red bell pepper. I find it to be an interesting subject with a bright, beautiful color palette, not to mention a smooth texture, and lots of room for bumpiness & imperfection – great for starting out. I took the reference photo against a white background for an appealing contrast, but still made sure to brighten it up in Photoshop.

STEP 1 – Creating Outlines

First thing's first. Open "redbellpepper.jpg" with Illustrator & immediately make it a template. This is a simple but critical step with this particular technique. Go ahead & create another layer on top so that you can begin rendering. [See (B)]

Ready for your first big mesh secret? I never use just one mesh within a rendering. I like to work with smaller, simpler meshes and basically "blend" them together. Remember - your audience will never see what goes on "behind the scenes", so go right ahead & layer your heart away with shapes!

Using your pen tool, draw over the main red section of the pepper. Keep in mind that the mesh doesn't work well with corners, funky shapes & hard edges. The mesh will form to whatever shape it's created in - so create the contour as round & simple as possible by using your Bezier curves! Put your first shape on its own layer & label it "Front (left)". [See (C)]

STEP 1 (Continued)

Go ahead & create a shape for the other large section of the pepper to the right. Make it as round as possible! When you're done, place it on a layer BELOW the main shape so no one will see the overlap once the rendering is complete. Label this layer "Front (right)". Continue drawing over the remaining layers & label them as follows: Behind Front (Right), Behind Front (Left), Back (Left), and Back (Right). [See (D)]

Also draw the stem & put it on its own layer labeled "Stem". In this tutorial, we won't be putting a mesh on it. It's simple & flat enough to recreate as a non-mesh vector with some really nice old fashioned gradients. [See (E)]

STEP 2 – Backup!

Now that you have your outlines, select it all and copy & paste it into one more layer. Call it "JUST IN CASE". Go ahead & hide that layer until you need it later. FYI: You may not need it but it's always nice to have something to fall back on in case you make a mistake or feel the need to start over! (I made this its own step because it is a vital one – a lifesaver in some cases!) [See (F)]

STEP 3 – Adding Color

Time to add some color! The easiest way to go about this is to pick the most common color according to each section of the pepper. Since it is consistently red, this step is an easy one. Use your eyedropper tool & take the color directly from the photo. (If your eyedropper won't let you, double click on the tool in the toolbar & uncheck "Appearance". This should do the trick.) The common color will vary from shape to shape, so keep that in mind. [See (G)]

Once you're done with this step, you're ready for the mesh!

STEP 4 – It's Mesh Time!

Like I've said before, there are many ways to go about using the mesh tool. I'm going to walk you through the easiest possible route. It starts off a bit confusing, but bear with me!

First, **hide all layers** except for "Front (Right)". Using your gradient mesh tool, click once anywhere on the shape (make sure you have your fill in front & no stroke). [See (H)]

Now **STOP**. Are you familiar with "Outline Mode"? This feature is helpful in so many ways, and you'll be surprised what it can do for this particular mesh technique!

Go ahead & turn it into outline mode (View > Outline, or command Y). FYI: In order for this to work correctly, you have to begin using the mesh BEFORE turning it to outline mode. If you try to use the mesh after the fact, **it won't work**. [See (I)]

You'll notice that you can now see the photo through your shape. This is why in STEP 1 we turned our photo into a template. (In outline mode, you can still see template layers as is.) This is how you will get your colors & mesh points as accurate as possible.

Time to start clicking away - but be aware that you can only add points to existing mesh lines. Don't get frustrated! Just try & work with it. [See (J)]

Now for some basic guidelines. While adding mesh points, focus on the lights & darks. Don't try to add points for the "in-between" color values. Usually the mesh will take care of that for you. [See (K)]

Use your eyedropper as you go along. (Or you can wait until the end.) Simply select on an individual mesh anchor point (with either your **direct select tool** or your **gradient mesh tool**), and use your eyedropper on the color that it's sitting on or directly next to. (Zoom in if you need to!)

Something to keep in mind also is that you have to **trust the colors** your eyedropper picks up. Sometimes they appear to be raw & just plain wrong, but you have to keep going. In real life, shadows can be practically any color – green, grey, blue, purple, even yellow. If later the color still appears to be unnatural, change it.

More things to consider - Don't forget about colors along the edges. Don't forget to adjust the anchor points to try to match the contours of the shape. Don't forget you can drag out the anchor handles to adjust the direction of the color. Don't forget to take your time & DON'T ADD TOO MANY POINTS!

There are a couple of major benefits to outline mode. One, you can work right on top of the picture, adding mesh points & picking your colors simultaneously. Two, you can **flip back & forth** with your shortcut keys (command Y) to see your progress as you go along. This technique, by the way, may be considered "cheating", but it's a great & easy method to learn how the mesh works.

STEP 5 – Repeat!

Once you've finished with your "Front (Left)" mesh, hide that layer & begin working on "Front (Right)" using the same technique. Remember to start your mesh **before** you turn it to outline mode. [See (L)]

Repeat this process with all your layers, minus your "Stem" layer. Remember that no one will ever see whatever's directly behind the shapes that are in front. What's important is that you train your eye to pay attention to where the color changes on each shape, where light meets dark. Trust your photo. [See (M)]

Keep in mind that it's always okay to start over if you're feeling overwhelmed or have suddenly discovered a better technique. You can always delete mesh lines (click on a mesh point & press Option + Delete). Or you can simply reshape what you've already done by moving the lines & points around. Just don't give up!
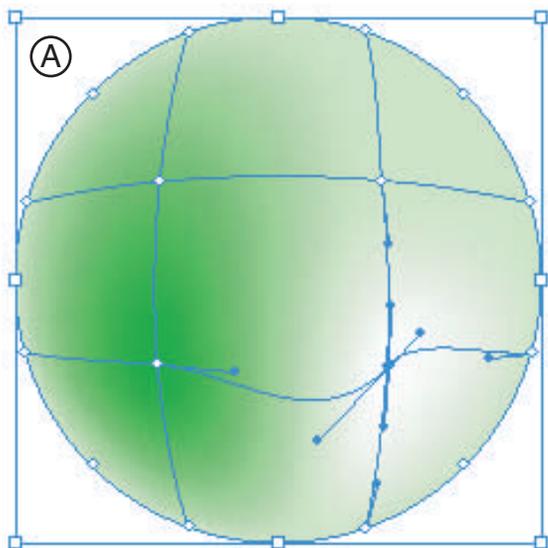
STEP 6 – Blend Together

Once all your mesh shapes are completed, and you have your layers turned back on, you may notice that the edges of each shape don't quite match up to one another. An easy trick to get all your shapes to look more natural when they are all together is to once again take advantage of your eyedropper. Zoom in as close as you can & select the various points along the edges. One by one, grab the closest color to the shape next to it. This should "smooth out" your pepper tremendously.

STEP 7 – Finishing Up

You may be asking yourself why I have chosen not to put a mesh on the stem. You certainly can if you want to. But, you see, none of my renderings are ever entirely mesh. Final details are always traditional flat vectors. It's just my style. So go ahead & render it any way that you wish. You can view how I did it in the final file that I've provided ("finishedpepper.ai"). [See (N)]

AND VOILA! You've successfully completed a Lifeinvector mesh tutorial! [See (O)]

PLEASE READ OVER EVERY PAGE CAREFULLY.
TAKE YOUR TIME & PRACTICE AS MUCH AS YOU NEED TO.
IF YOU HAVE ANY QUESTIONS REGARDING THIS TUTORIAL
PLEASE FEEL FREE TO EMAIL ME AT brooke@lifeinvector.com.
I WILL TRY TO GET BACK TO YOU AS SOON AS POSSIBLE.
THANK YOU & HAPPY RENDERING!

A

B

Layers Actions Links Color

Layer 2

Photo Template

2 Layers

C

D

Layers Actions Links Color

Front (Left)

Front (Right)

Photo Template

3 Layers

E

Layers Actions Links Color

Stem

Front (Left)

Front (Right)

Behind Front (Left)

Behind Front (Right)

Back (Left)

Back (Right)

Photo Template

8 Layers

F

Layers Actions Links Color

JUST IN CASE

Stem

Front (Left)

Front (Right)

9 Layers

This Red Bell Pepper Mesh Tutorial is ©2005 Brooke Nuñez of Lifeinvector.com

(G)

(H)

(I)

View	Window	Help
Outline		⌘Y
Overprint Preview		⌥⇧⌘Y
Pixel Preview		⌥⌘Y
Proof Setup		▶
Proof Colors		

(J)

(K)

Ⓛ

Ⓜ

Ⓝ

Ⓞ

		JUST IN CASE	○
👁		**Stem**	○
👁		Front (Left)	○
👁		Front (Right)	○
👁		Behind Front (Left)	○
👁		Behind Front (Rig...	○
👁		Back (Left)	○
👁		Back (Right)	○
👁		Shadow	○

9 Layers