

An “ARTISTICALLY ACCURATE” RPG CITY MAP in PHOTOSHOP

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A FEW INTRODUCTORY NOTES to THIS TUTORIAL

Why use Photoshop to make city (or other) RPG maps? Two reasons: beauty and flexibility. I’ll admit Photoshop’s learning curve is horrendous, and the program’s Help file is the worst series of technobabble documents ever penned, but once a user has some basics the results knock any other “pre-packaged” RPG mapping program out of the water. Those other programs are great (I own & like Dundjinni myself), but they are like fast food compared to steak.

Who are you? Let me admit right up front that I am a proud Photoshop novice, so I make no guarantee that the process described in this tutorial is not wing-dingalicious with bizarre or useless steps. This is simply the best I could devise from hours of trial and error. In fact, I never intended this tutorial to be “published”: after about the third time of trying to remember “how in the world did I do *that*, again??” I decided to give myself a memory guide. It turned into a tutorial, & I’m putting it out there in case my fumbling can help you somehow.

How much Photoshop do I need to know? I assume you are a novice like myself, but not a complete beginner. You should know basic Photoshop processes like opening files, applying filters, making selections, adding text, and so forth. If you do not, spend a few minutes looking up “Photoshop tutorials” on the Internet; that’s how I learned.

What software (etc.) do I need? I use Photoshop CS2 for Windows, but I am 99% certain the steps are so general that they’ll work for other versions, and I imagine GIMP users (& other programs like Corel) could figure out their own adaptations for the same results. Also, no special equipment, software, add-ons, or plug-ins are necessary—although a drawing tablet is nice! A scanner could also come in handy for planning/sketching stages and such, too, although I didn’t use one.

Just what type of map are we making here? Explained herein are instructions for crafting a map of a “normal” medieval city (ie, on field/grass, near forest & water). Mountainous, desert, snowy, underwater, mystical, magical, or other city variations (including less densely populated cities) would use similar processes; adjust as you see fit.

Also particular to this tutorial is the drawing style; I did not actively copy any published work or known cartographer, and I used no copyrighted material. Similarities are coincidental.

And just what is this aforementioned “style”? I would describe it as “artistically accurate.” My intention was to make a type of map that is 1) useful to the GM & players

alike; 2) quick to create; 3) fairly “artistic”; and 4) attractive to the eye. This is not intended to be an authentic antique map (actually look it up: most medieval maps were not *at all* attractive!), and this is definitely not intended to be photorealistic. These maps match my GMing style: suggestively realistic, but not nitpicky. You’ll notice that below I never once mention scale (or put one on the map), I don’t give a hoot or holler what the population of the city is, and I really could care less what each and every building represents. Like a novelist, I want to *suggest* reality so my players’ imaginations can feel confident in the verisimilitude of our game world—keep the fictional dream alive, so to speak—but I have no desire to become an IRS number cruncher or an RPG rules lawyer. As I said, my style. If you are not this way, perhaps you can adjust the map creation & result to your needs.

I. PHOTOSHOP SET UP

The following steps need be completed only once for however many city maps you ultimately create. The few minutes you spend here & now will become a great time saver in the long run!

A. Colors

Decide a range of colors for browns, blues, & greens (assuming a normal, temperate climate city map here; you will need other colors for other environs); I suggest 4 of each color. Pictured is the basic palette I use, drawn in a blank document (it includes my basic fill images, too, explained below).

How to use this? Well, you can just keep this document open beside your active window, using the color palate as you work with the color picker, but faster and more convenient in the long run is creating a custom “swatches” library. Because the default “swatches” includes a wide range of colors, I delete all old swatches & add only my choices. Here’s how:

- ALT-click each square OR drag each to the trash—although leave the white – grey – black row (PS: the default swatches are never gone! Don’t worry.)
- Then, one-by-one, eyedropper pick your colors
- Hit the little arrow on the “swatches” folder & click “new swatch”
- Give each new swatch a name (ex: “ground 1”)
- When all colors are added, click the “save swatches” & call it something



- you'll remember (ex: "City map colors").
- This swatch window now becomes the default swatch library; if you ever need to load the original library (or to reload this one later), choose "Load Swatches" from the Swatches Palette Menu, select the library you want, and click "Load."

B. Textures/Fill patterns

Aside from the color swatches in my palate document (above right) are images of textures. I used these to create fill patterns for my document; do the following for any main textures you'll need. I have patterns for trees, stone brick, roof tiles, & farm fields. Either take these images yourself with a digital camera or find another image.

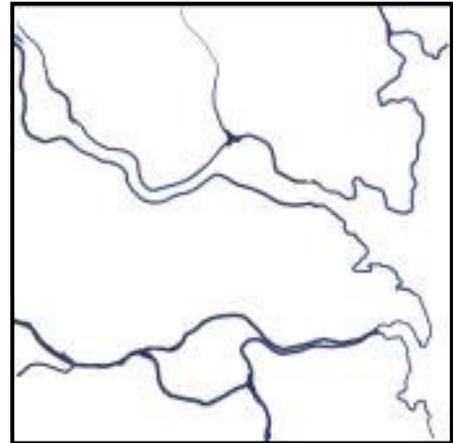
- Open the image in Photoshop (the size requirements of the image varies; you can scale fill patterns after placing them, although this can become tedious & if enlarged too much pixilation may be noticeable. 100 x 100 pixels seems to be workable for my purposes.)
- Note that to make the image "seamless" you'll have to EITHER use an image that has little variation in size / focus OR do some editing of the image before creating the pattern to make it seamless (do a web search under "seamless tiles tutorial" or "seamless pattern tutorial" to learn how); otherwise when you use the pattern as fill "seams" between each instance of the fill image (sometimes called "tiles" since they're square) will be visible...Fixable (ex: with the clone stamp tool) but a time waster. Luckily, most of the images we're using (ex: foliage) are basically asymmetrical anyway!
- "Surround" the pattern using the marquee tool (ie, make the marching ants around the whole thing)
- Choose Edit>Define Pattern
- Give it a name & click "OK"

II. STARTING THE MAP!

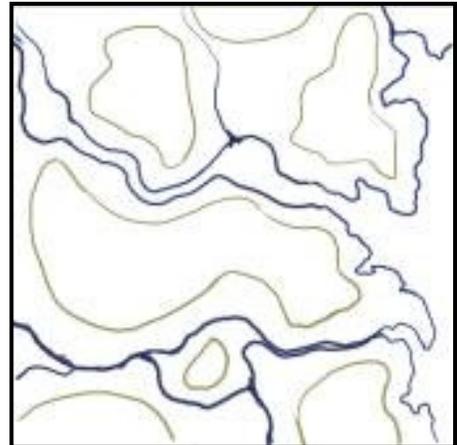
A. Basic Sketch

- Open a new Photoshop document (duh!)
- The pixel dimensions of this document are very important. Photoshop (unlike Adobe Illustrator & some mapping programs) is “raster” based vs. “vector” based—which basically means you may not scale up or down with impunity. For example, if you draw your document too small then up its size later for use, you will create pixilation galore!
- Pixel number depends upon the size of the city you’re creating. Below are listed guesswork approximates—minimums I’d say; larger in raster is almost always better, (as long as your machine can handle it of course), although too big can often just be wasted “wait time” when zooming, saving, etc.
 - Large town/small city: 1000 pixels sq.
 - Medium city: 1500 pixels sq.
 - Large city: 2000 pixels sq.
 - Metropolis: 2500 pixels sq.+
- “Document size” & “resolution” is up to you; I myself do all my gaming on-line so I rarely print out anything. Therefore pixels is everything to me, resolution nothing. My advice is set size & resolution as high as your printer can handle.
- Also, when & if you do need to resize the image (using Image>Image Size), make sure the “scale styles” & “constrain proportions” boxes are checked, & that “Resample Image” is set to bicubic (or bicubic sharper) (*caveat emptor* on this advice, though! I only slightly understand what I’m talking about! ☺)
- Change the default layer to “background white.”
- *Advice:* Become a layer maniac. Create a new layer for each & every element you create!!!! This is the voice of experience, here! Have 200 layers if you must!
- Now let’s sketch out the land & geography. Create a new layer for each “sketch” (“coastline sketch”, “road sketch”, “hills sketch”) & use a brush to sketch out the basic layout of the entire city, geography, etc. (Note: some people prefer to do this on paper & scan it in, which works just as well.)
- Doing each layer’s element in a different color is a must—plus be sure to use bright, vivid colors *not* on your color pallet!!! (I goofed slightly in my examples & used blue for my coasts & rivers, which caused difficulty later , forcing me to switch to yellow.)
 - The map I’m creating for this tutorial is “Eneini,” a coastal, riparian city in a fairly hilly, temperate region; it contains an ancient road to the capitol & has been an important port for hundreds of years.

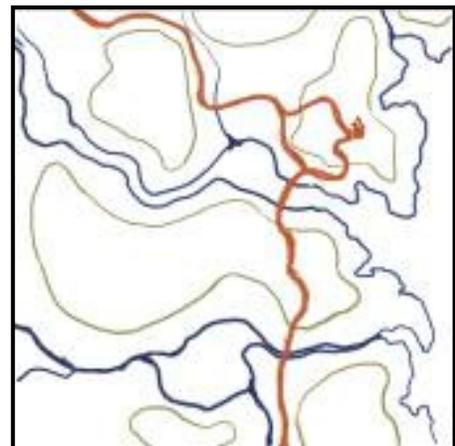
- Always start with basic geography, *not* the city itself. Here I'll start with the coastline & rivers sketch.
- (NOTE: do *not* use blue; use a bright color like yellow; I made a mistake!)



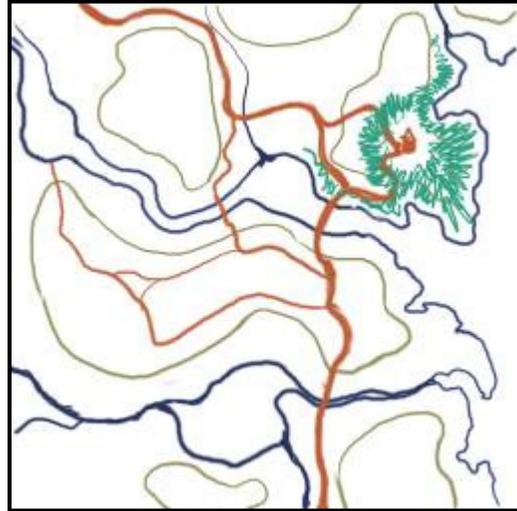
- Then add elevations (either hills, mountains, or in my case just general high ground), mainly where they would make sense in accordance with rivers, etc.



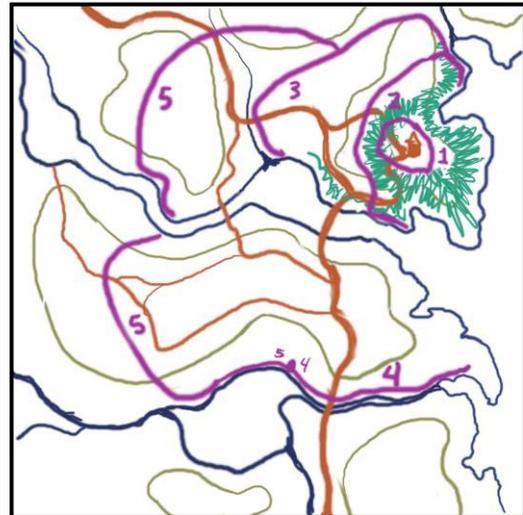
- And then I add main roads & the city castle's location



- Now it's time to think about the city's growth. Not "what shape is the city?" but "How did the city develop over the last 500 – 1000 years?" I already put the castle on a hill, and I decided the town in its earliest form surrounded the castle, being mainly on the coast behind it but also on the road before it. [the green scribbles = the early town]



- Then ask how these people were defended—this may be why they huddled around the castle in the first place, mainly—defense. So let's put the walls in, but let's do it in stages from the earliest (labeled 1), which only surrounded the keep, to most recent (5), assuming the city grew in these directions over hundreds of years.
- In wall placement I am also going to think a bit about defense and construction—where would the walls logically be built based on the lay of the land (hills, rivers, etc.)
- Now, I say "logical," but I believe walls on the scale I'm planning here are amazing—if not completely unrealistic... (although China had a pretty great wall, I hear...)



NOTE: Save frequently & save under lots of different file names!! It's a lot easier to pull up a slightly older version of that map you accidentally ruined than it is to recreate it anew!

B. Adding “Base” Colors

- Now that the sketch is done, we’ll hide all layers except the coastline & “background white”. Create a new layer called “land” & place it below all other layers *except* “background white”.
- Now choose the “base” land color from your pallet & outline the coastline.
- When done, fill in the rest with the paint bucket. (I also added a few islands for the fun of it)

Note: I’m describing a coastal city here. If I were creating an inland city, I would skip these steps & just “fill” the entire map with land color, painting rivers onto it in another “rivers” layer.

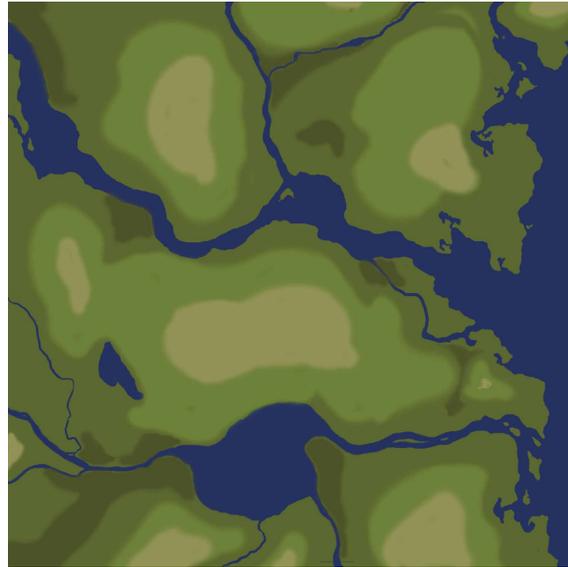


- You can delete the “background white” layer if you wish.
- Create another layer called “Water” & place it below all other layers. Choose your darkest water from the pallet & fill this entire layer.
- Time to draw on rivers & lakes. Make the “coast sketch” layer visible so you can see it on top of the land.
- In your “land” layer, erase all land that covers the rivers & lakes. (*Note:* you could, alternatively, create a new layer called “rivers” & just draw them on, which works just as well, although I’ve found the filters do not work as well.)
- If you wish, you may now delete the “coast sketch” layer.
- Plus, with a smaller eraser in the “Land” layer, you can touch up the coast & rivers into their final forms. In the picture here I’ve left the “hills sketch” layer on while I worked, so I wouldn’t have streams flowing uphill, etc. Geography is marvelous & this is a fantasy RPG map, but even here it’s not miraculous! ☺

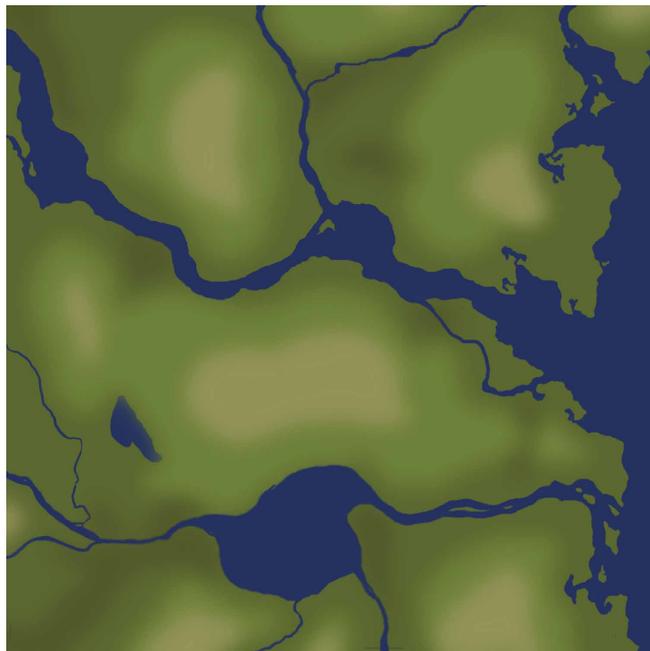


C. ADD BASIC ELEVATIONS, WATER DEPTHS, & ROCK

- Fill in the hills using a soft airbrush & the ascending land colors, creating a new layer for each. (I called mine “hills 1” etc.). You can also add some deeper elevations with the darker land color.

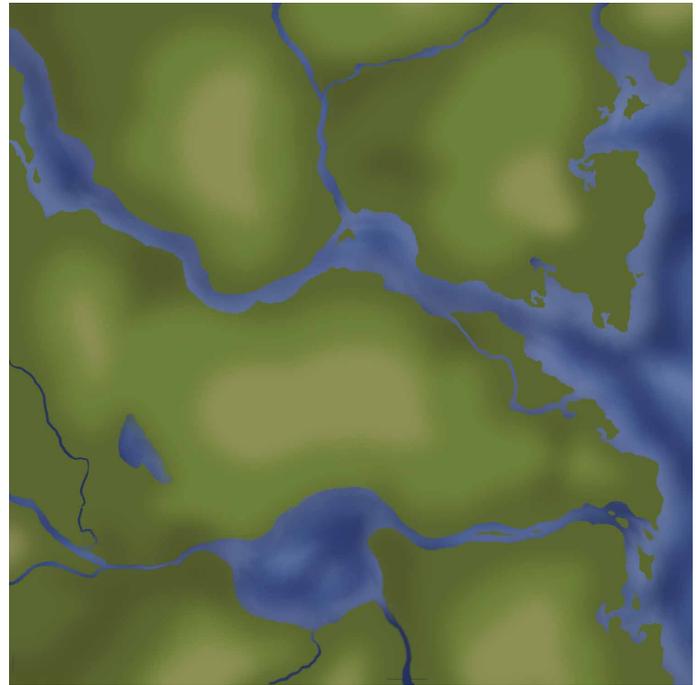
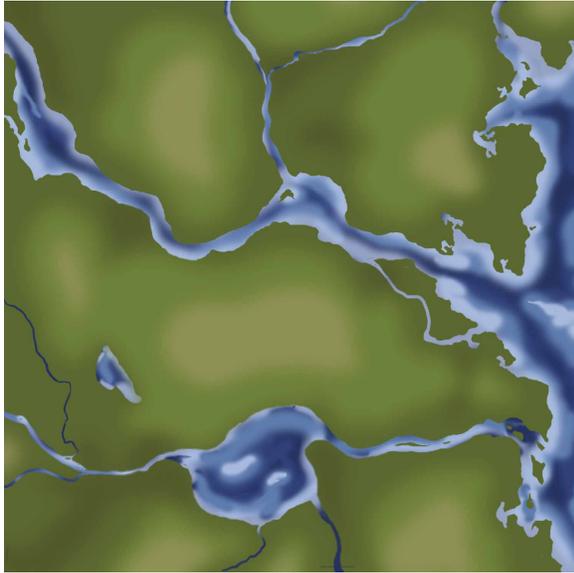


- Then apply Filter>Blur>Gaussian blur at around 20 pixels on each elevation layer.
- If you want/need to, lighten or darken one or more layers using the “opacity” slider as well.
- Afterwards, you can delete the “Hills sketch” layer.



- *Tip:* Don't be too careful around rivers, lakes, & coasts; after blurring, click the “land” layer & magic wand the water, then hit “delete” on each layer of elevation; this will get rid of any runoff into your water.

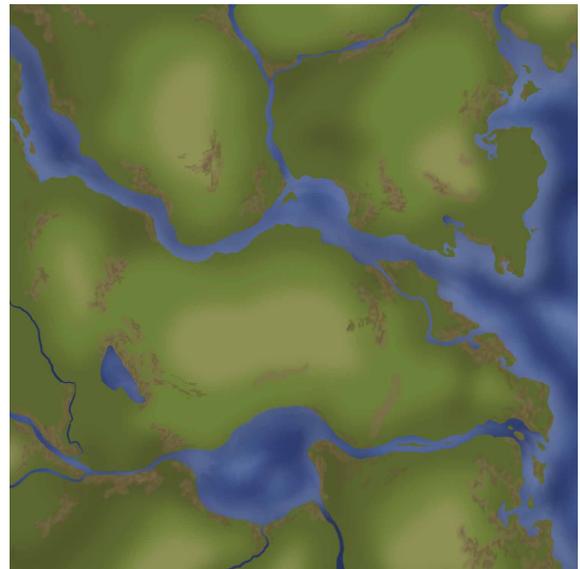
- Now do the exact same as above for the water: create layers for each water “elevation” & highlight the coasts [left], then Gaussian blur each [right].
- I sometimes use the smudge tool & trace down my rivers to give them a “flow” appearance, too, but that’s optional.



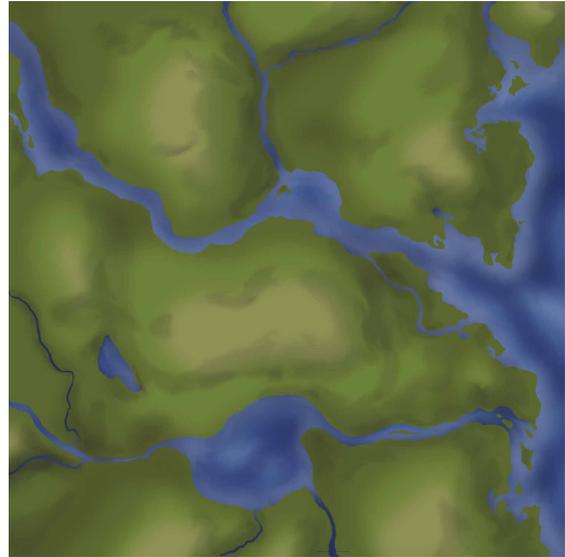
- Next, since the area we detail is not quite complete grassland we will add some rock and cliff features. As always, start a new layer (“rock”) & with a soft brush (set airbrush, & about 60-70% opacity) select a rocky tan color & begin to draw.

- TIP: I’ve placed many cliffs/rock near my coasts, but I didn’t want the rocky color in the water, so I select the base land layer & chose the land itself, then switch to the rock layer. This prevents the pen from marking anywhere outside the land.

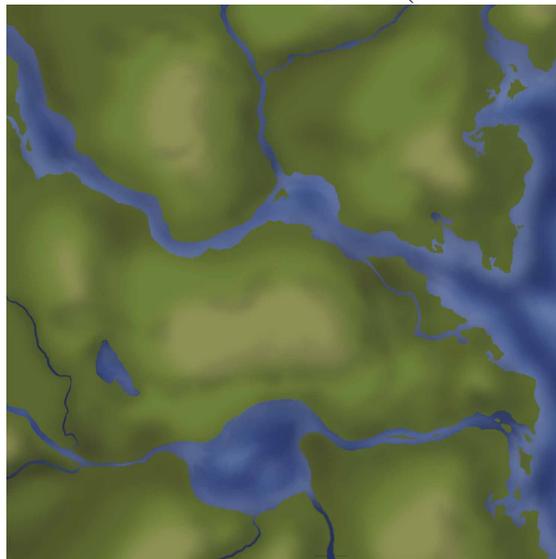
- OPTIONAL: On top of the tan, select a darker color & “scribble” lines, dots, etc. This doesn’t need to look neat—it’s more for texture. Actually, it’s largely unnecessary since as a final step we’ll texture rocks, but sometimes it can add interesting colorations so I do it anyway—quickly.



- Blur>Gaussian this layer at about 2 px
- Finally, add a few shadow features to the landscape. Until our next-to-last step, many/most of these shadows will be covered by buildings, walls, etc. In fact, this step could be entirely saved until later, but I do it now to help me better visualize where roads & walls will go. (Note too that although some Photoshop filters can somewhat mimic the effect, I like to do shadows by hand—the result feels more organic.)
- Create a layer called “Overland Shadows” above all other elevations. (I hide the “rock” layer to make the elevations easier to see.)
- Decide from which direction the sunlight streams. I’ll choose the west for mine, perhaps slightly northwest. ***Remember this direction!*** When we apply drop shadows later the light’s direction becomes important once again.



- Using a large, soft airbrush set to black, dropped down to about 15% opacity, trace the *opposite* sides of the hills from the light source. Go over some portions twice to make them darker (esp. at bases of hills). I also like to trace rivers & some coastlines—as well as adding other, random shadows to add interest.
- Then, Filter>Blur>Gaussian Blur the shadows (at about 10 px).



- About now I'm getting a lot of layers, which can be messy, so I like to make "land" and "water" groups in the layers palette & move appropriate layers into each (You make sets by clicking the little file folder in the layers palette, naming it, then grabbing & moving layers to it).

D. REDEFINING ROADS & WALLS

- Turn on the "road sketch" & "walls sketch" layers you created earlier. Now that you have the geography in tact, revisit both of these. I changed the walls in the "sketch" layer & simultaneously created a "Main Roads" layer to draw main roads with a hard-edged brush.
- Remember that medieval city roads are normally not straight, parallel, or perpendicular. Urban planning is basically nonexistent; roads generally follow the lay of the land: have them skirt hills or wind up them, etc. (This is the main reason I hand draw them vs. using a tool.)
- Also make sure to have appropriate squares & markets in mind.
- Finally, a well-established, large city like Eneini here would be *packed* with buildings—inside walls was protection & commerce—so roads should not leave great "blanks" without reason. We are drawing in only main roads at this point, but keep all this in mind as you do!
- You can trash your "road sketch" layer when done!



E. ADDING BUILDINGS

- Now we'll add some buildings. My style, as you've seen, is not photographic, but imagistic: I want in illustration to create the *image* of a city, the illusion, but not the "reality." So here's where I really diverge from what many fantasy cartographers create.
- Create a "Buildings" layer *beneath* the roads layer, & choose the appropriate color (mine is ruddy to simulate roof tiles; this is perhaps not entirely historically accurate, but I find the end result attractive.) Then, in a large, hard brush, paint in the areas that will become buildings.
- You'll notice on my maps I leave the "rock" areas largely unfilled—my reasoning is that no one builds a building on a cliff...



- When the bulk large areas are filled, switch to a small square brush (you may have to load the square brushes to do this: pull own the brushes box, then click the carrot next to the master diameter number & you should see it.)
- Randomly dab in small "blocks" of buildings for less densely populated areas. (I also like to throw in a few "random" buildings here and there; it's more realistic, I think...)



- Now hide the “Main Roads” layer
- Copy the “Buildings” layer, changing its name to “Minor Roads”
- Then in the “Minor Roads” layer, select all the red & change that to the main road’s color. Make sure this “Minor Road” layer is placed *below* the “Buildings” layer.

- Now we’ll create side streets, alleyways, & areas of eye-interest. In the “Buildings” layer, using a small, hard-edged eraser, draw lines & squares, dashes, etc. to represent alleyways, gaps between buildings, etc. Now you see why we placed the “Minor Roads” layer below the “Buildings” layer: the erased areas show up in the road color, too.

- This can seem tedious work (esp. if you don’t have a tablet), but the results will form a great part of the “life” of your city. (Note that plenty of Photoshop functions *could* simulate this same effect—especially mosaic tiles and such, or creating & applying patterns—but the results are too random/mechanical for my tastes.)



- After you’ve “erased in” all the minor roads, alleys, etc., go into the “minor roads” layer & draw in some small paths, etc.
- Finally, select the main roads by ctrl-clicking on the “Main Roads” layer, then in the “buildings” layer, press <delete>. This will remove any buildings below the roads. Now move the “buildings” layer *on top of* the main roads layer. (Why do this? Because we will apply a shadow to the buildings later, so they must sit on top of the roads).

- You can also go back in the “Buildings” layer & add those last few touches of “red.”

