03-01-Exercise (PHOTO OF CRYPT)

Various transform operations, high pass, saturation

OPEN FILE
> You can see that this Canon picture is tilted slightly. We want to clean it up and sharpen
> Check pixel dimensions 4272 pixels x 2848 pixels. What's the significance of these numbers?
> This proportion is 3:2 or 1.5:1. It just so happens to be the proportion of a film negative.
> This is called the **aspect ratio**
> iPhone 5S take a picture that's 3264 pixels X 2448 pixels. An aspect ratio of 4:3
> These are the most common aspect ratios to work with for still photography or video
> Drag guides to the outer columns to assess which side has a sharper angle
> We'll do a quick rotation to fix this and get it equal (eyeballing it)

TRANSFORM ROTATE
> Select all (Command-A) and jump (Command-J) to a new Layer
> Then Command-Delete the background to white
> Do a **transform** and rotate just a hair until the visual angles on left and right match
> Double-click to complete this operation
> But our perspective is low so the columns appear to have a vanishing point way way down below
> In architectural imaging we try to keep our verticals **vertical** (or as close as we can)

TRANSFORM PERSPECTIVE
> Do a transform using the menu and toggle down to **perspective**
> Click on and drag the control points at bottom of image and drag them outward
> You'll see perspective correct itself a little bit
> Now drag upper control point inward and it'll correct a bit more
> But we've squashed proportions a bit, so grab center-upper control point and pull upward a bit
> We've made the verticals a bit more vertical

TRANSFORM SKEW
> But it looks like upper left can come inward just a hair so pick **transform** in menu and go to **skew**
> Drag upper left corner inward just a hair until it looks better

HIGH PASS TO SHARPEN
> Take this transformed layer you've tweaked and copy it
> Go to: **filter** > **other** > **high pass** and do a tolerance of about 3 or 3.5
> Toggle the overlay button near the top to **hard light** or whatever and see what happens
> The default for overlay is set at **normal**
> The high pass has taken any place of contrast between pixels and pushed the pixels to more contrast
> Tolerance of 3 means three pixels away from a point of contrast is how much will be pushed
> Image should be slightly sharper. Zoom in to image and see for yourself.

ADJUSTMENT LAYER LEVELS
> Go to bottom of Layers Palette and click on the half circle and go to **levels**
> This puts an **Adjustment Layer** on top of whatever Layer you were just on.
> Adjustment Layer effects every layer below it in the stack of Layers
> Clamp your image slightly by moving **black point** a couple pixels inward
> Do same for **white point**. This is like increasing contrast.
> Now zoom in and look. Toggle the Adjustment Layer off and on and see the difference.

ADJUSTMENT LAYER HUE-SATURATION
> Add another Adjustment Layer on top of that one this time add **hue-saturation**
> Don't mess with hue. The photo's accurate enough regarding hue.
> Many photographers do bump up the saturation a bit.
> Increase sat just a tiny bit then zoom in and see result by toggling off and on
> Adjustment Layers can be turned off simply by unclicking them
> This is called non-destructive editing: When you have backup layers and all can be undone.

CROP TO ORIGINAL SIZE
> Since we've rotated, skewed, and altered perspective, we now see angles and artifacts at corners
> Let's re-crop but to the exact size and proportion we started at

> Click on **crop tool**. Toggle to crop by W X H. Type in the pixels we started with 4272 X 2848
> You must type in: 4272 px and: 2848 px PS doesn't like it any other way.
> Now drag the crop tool slightly inside of the artifacts we made (you can use guides to snap to)
> When you've artistically re-cropped, double click to complete
> Photo has been cropped in slightly but retains original proportions and pixel size
> Photo now more vertical, crisper, cleaner looking
> **SAVE** - Command-S