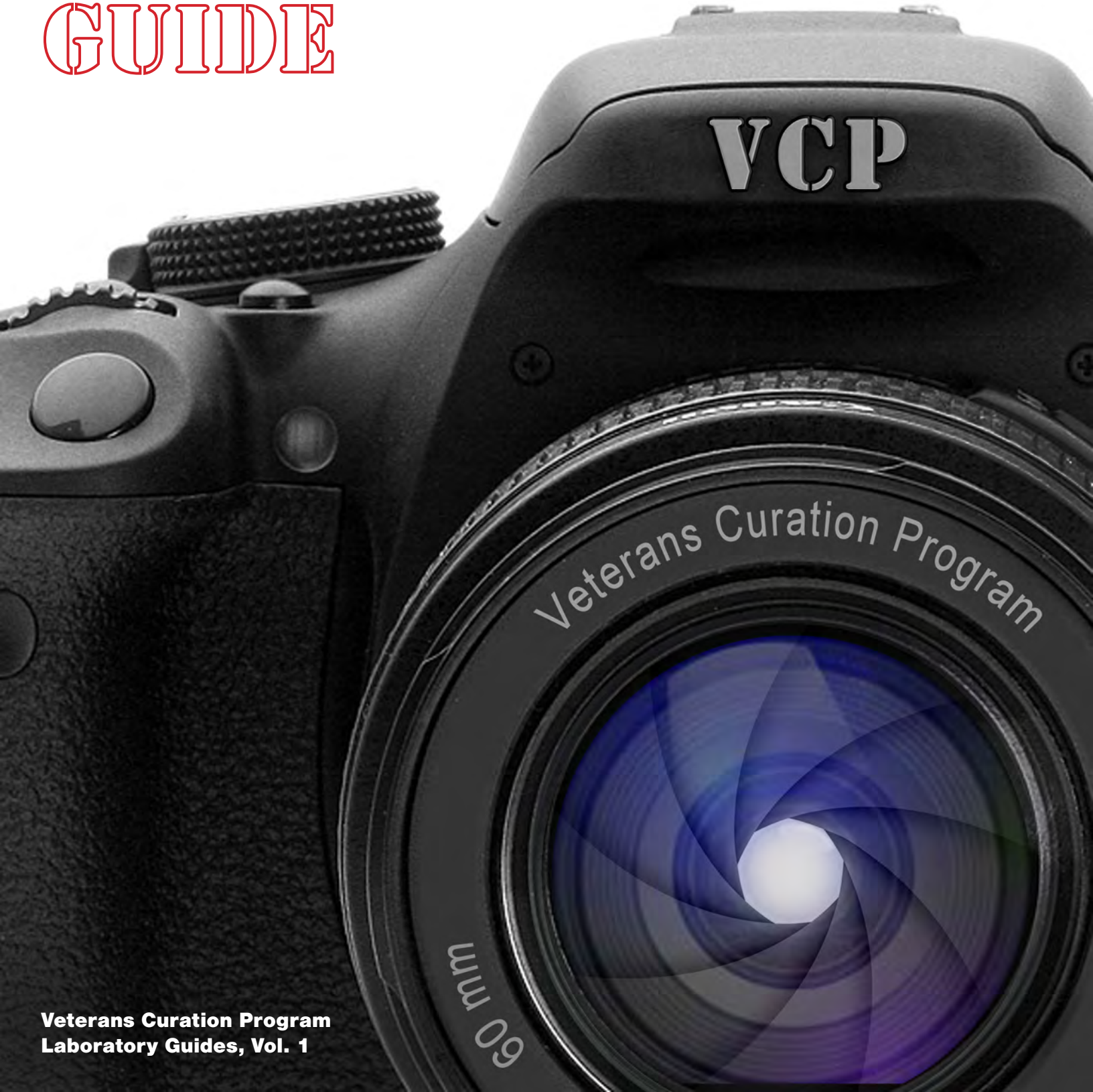
ARTIFACT PHOTOGRAPHY GUIDE



Veterans Curation Program
Laboratory Guides, Vol. 1

ARTIFACT PHOTOGRAPHY GUIDE

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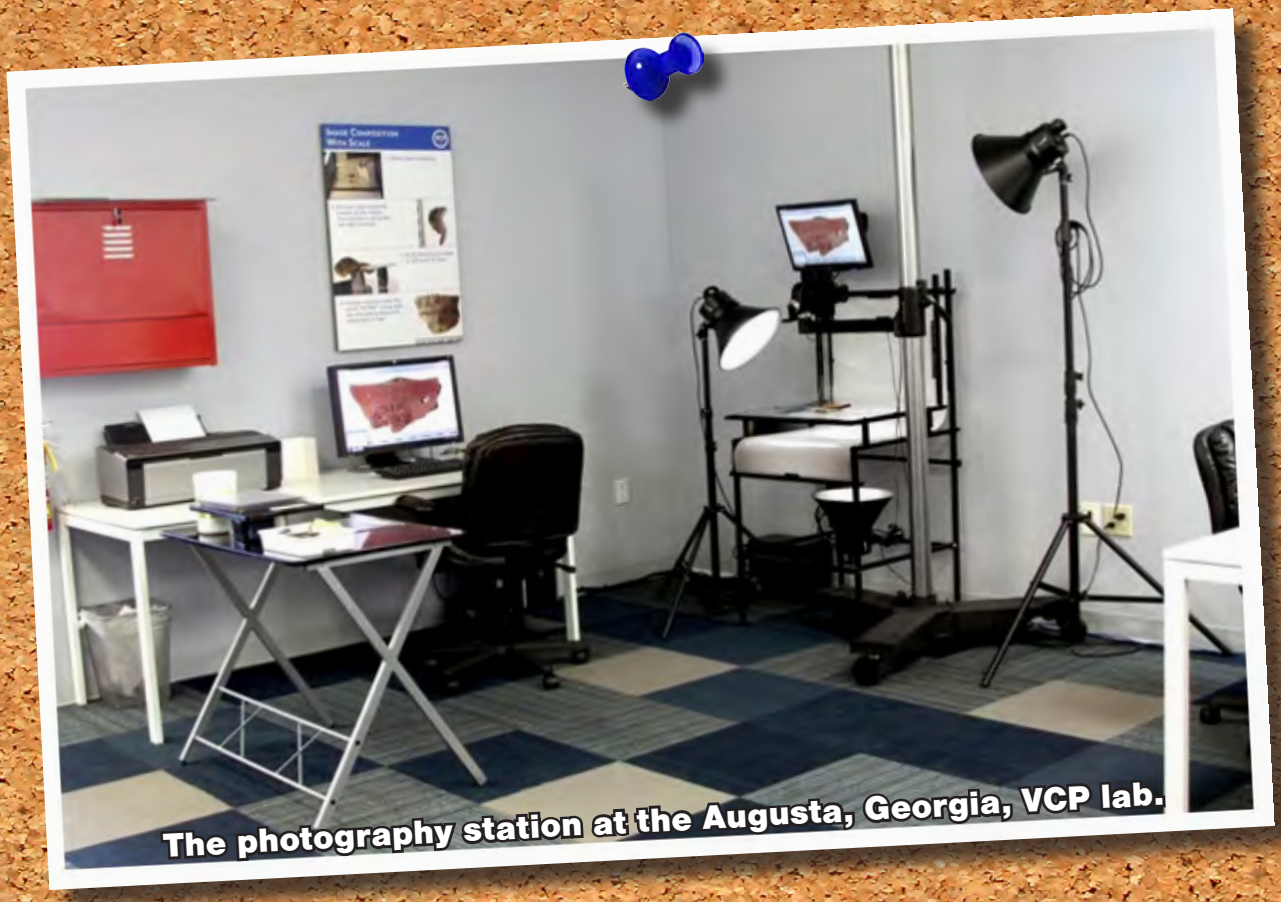
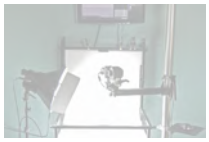
This Laboratory Guide is dedicated to the men and women who have made the Veterans Curation Program a reality. Through their enthusiasm and hard work, the program has thrived and continues to provide people with a future through the preservation of the past.

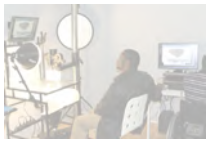


The photography station at the Augusta, Georgia, VCP lab.

Steps 1–4 **Artifact Prep**



Steps 5–10 **Camera Setup**



Steps 11–15 **Composition**

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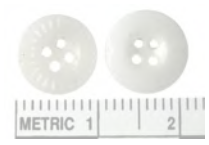
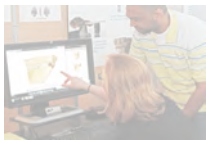


Steps 31–32 **Views**



Steps 33–35 **Quality Control**

Artifact Prep

Summary

1. Put a clean piece of Plexiglas on your work surface.

2. Place the artifact on a pedestal.

3. Stand a piece of modeling clay on a piece of paper near the artifact and press the scale into it so that it's level with the top of the artifact.

4. Bring the artifact to the light table and place it under the camera lens.

Artifact Preparation Tools

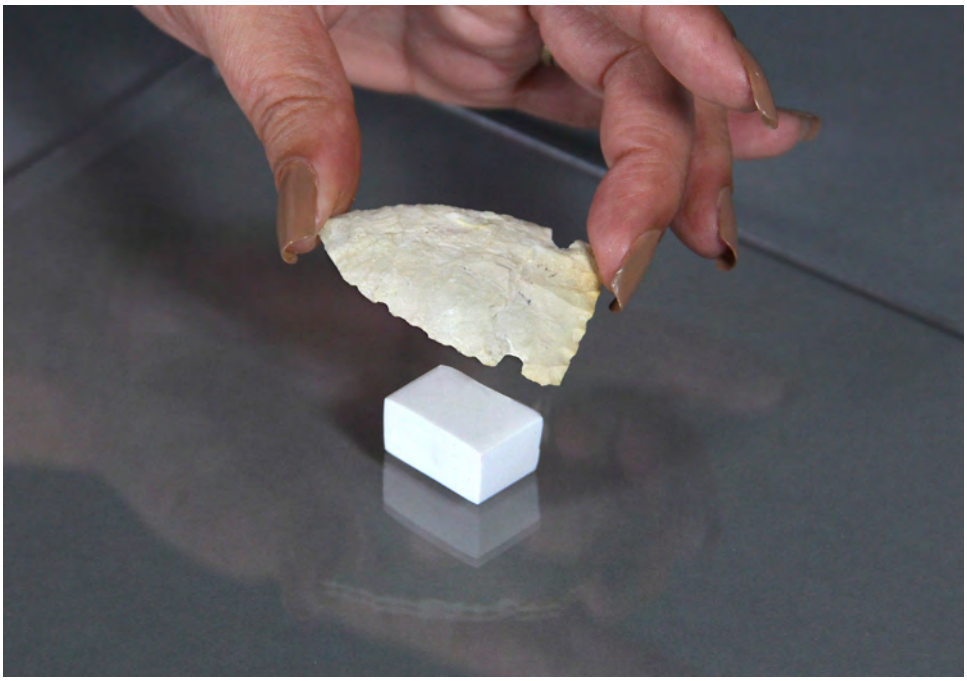
Artifact Prep

1

Put a clean piece of Plexiglas on your work surface. If necessary, wipe it with a microfiber cloth.

The Plexiglas may have numerous scrapes and scratches. This is okay—fine lines like scratches will not show up in the photographs.

Artifact Prep



2

Choose a pedestal (eraser) smaller than your artifact, so that the pedestal can't be seen. Carefully place the artifact on the pedestal.

The artifact must be at least 1 inch above the Plexiglas.

•

For very small artifacts, or to get a profile view of a thin artifact, use a small piece of clay or tacky wax* (depending on the material) instead of a pedestal.

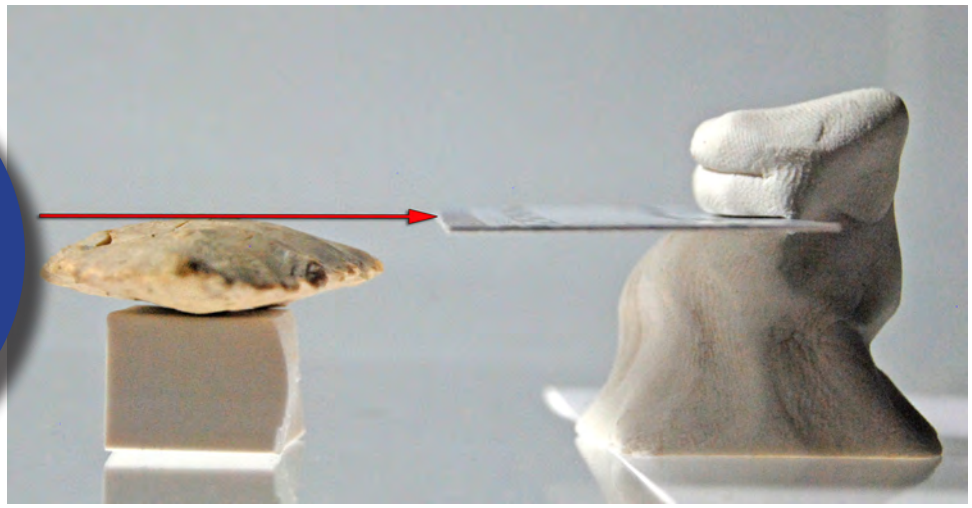
*Tacky wax can damage many artifact types and is used more rarely. Consullt with a lab manager.

Artifact Prep

3

Get a piece of white paper, a piece of modeling clay, and a scale. Stand the modeling clay on the paper near the artifact.

Press the scale into the modeling clay so that it's straight and level with the top of the artifact.



Artifact Prep

4

Bring the Plexiglas, with the artifact and scale on it, to the light table and place it under the camera lens.

Artifact Prep

QC

Ready for Quality Control?

As you take pictures, keep in mind the following quality-control issues.

DUST

Is there dust on the Plexiglas surface or on the lens? Use the lens brush to clean off any dust and dirt that shows up in the image.

COMPOSITION

Is the artifact too large or too small in the frame? Is there equal space around all sides of the artifact?

SCALE POSITION

Is the scale lined up with the left edge of the artifact? Is it level? Is it showing metric units? Does the image show too much of the scale?

FOCUS

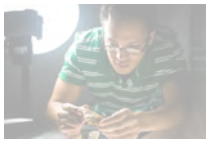
Make sure the artifact and the ruler are in focus.

EXPOSURE

Is the image too dark or too light?

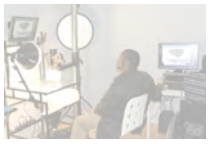
LIGHT

Does the lighting show the important features or texture of the artifact? Are there parts of the artifact that are “blown out” or in deep shadow?



Steps 1–4 **Artifact Prep**

Steps 5–10 **Camera Setup**

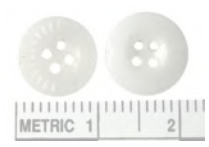


Steps 11–15 **Composition**

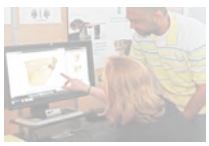
Steps 16–21 **Focus**

Steps 22–28 **Exposure**

Steps 29–30 **Saving Files**

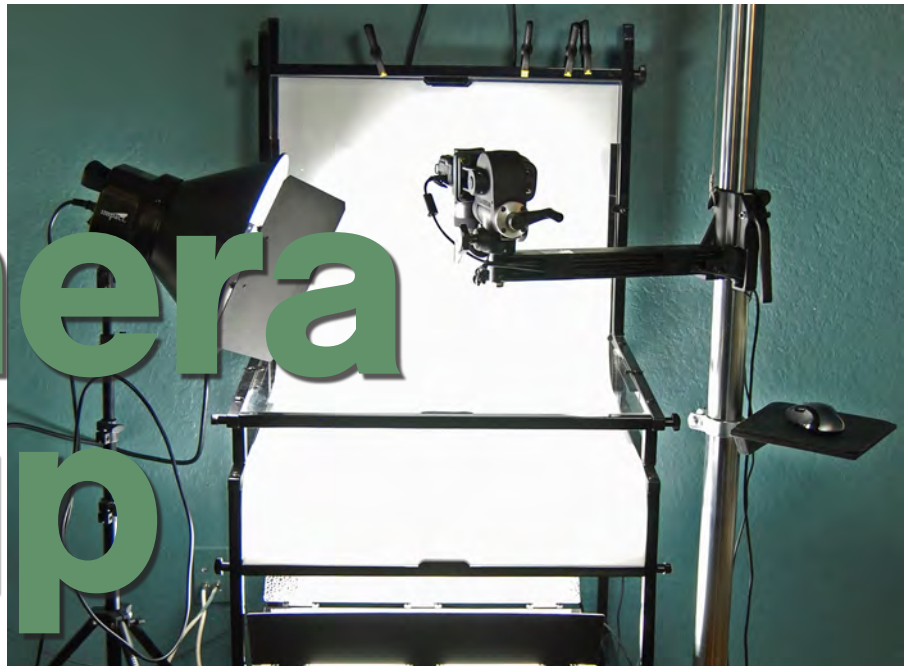


Steps 31–32 **Views**



Steps 33–35 **Quality Control**

Camera Setup



Summary

5. Make sure the left and bottom lights are on.

6. Make sure the camera is on.

7. Double-click on the EOS Utility icon.

8. Double-click on “Camera settings/Remote shooting.”

9. Click on “Live View shoot.”

10. Make sure these settings are in place:

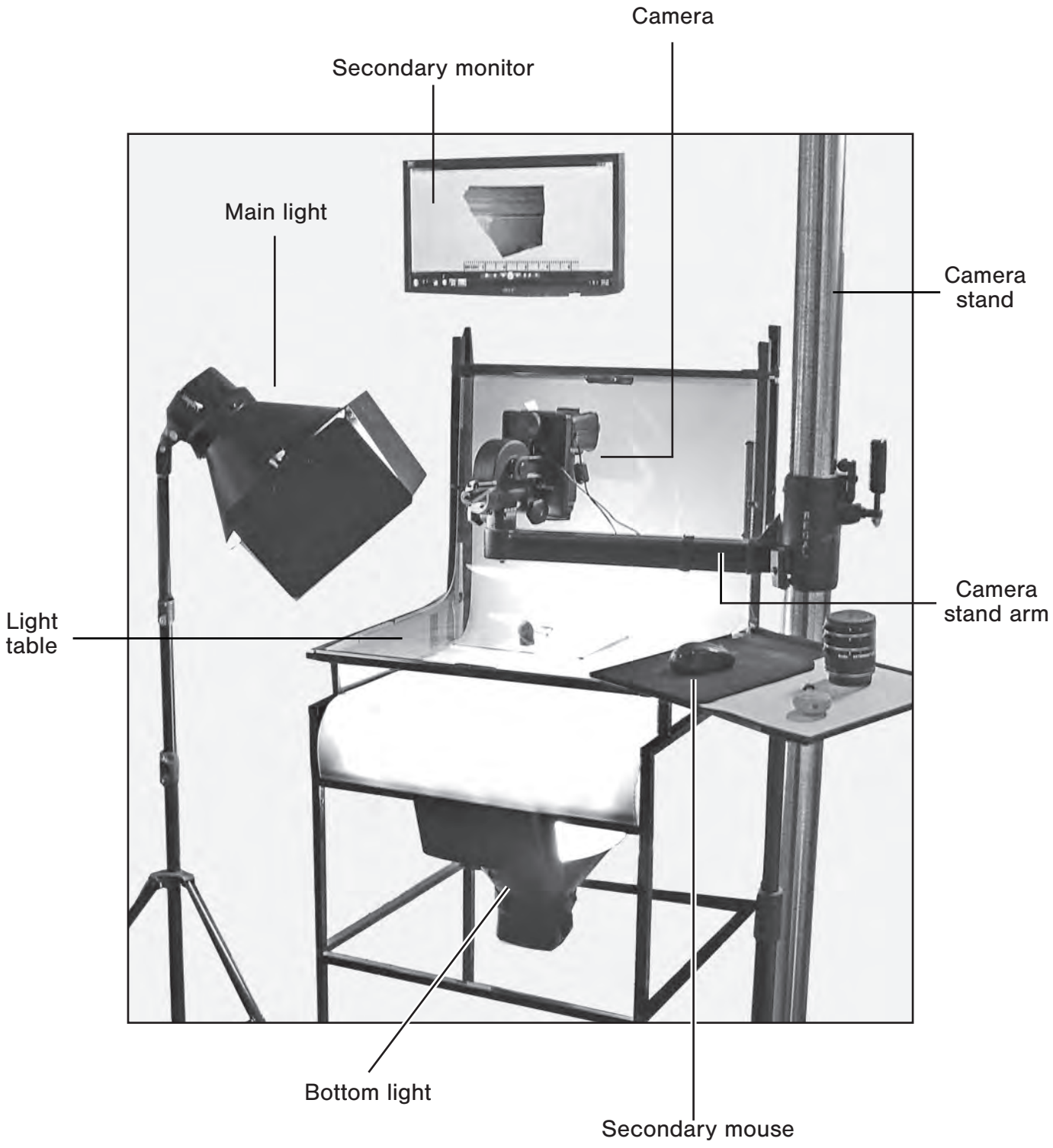
White balance = *custom*

Focus = *Quick Mode*

Aperture = *F11*

ISO = *100*

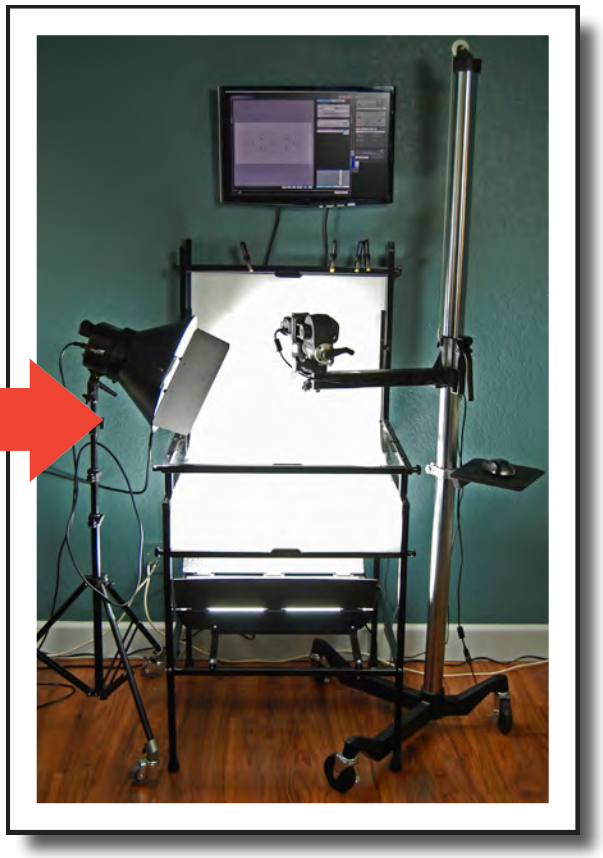
Camera Station



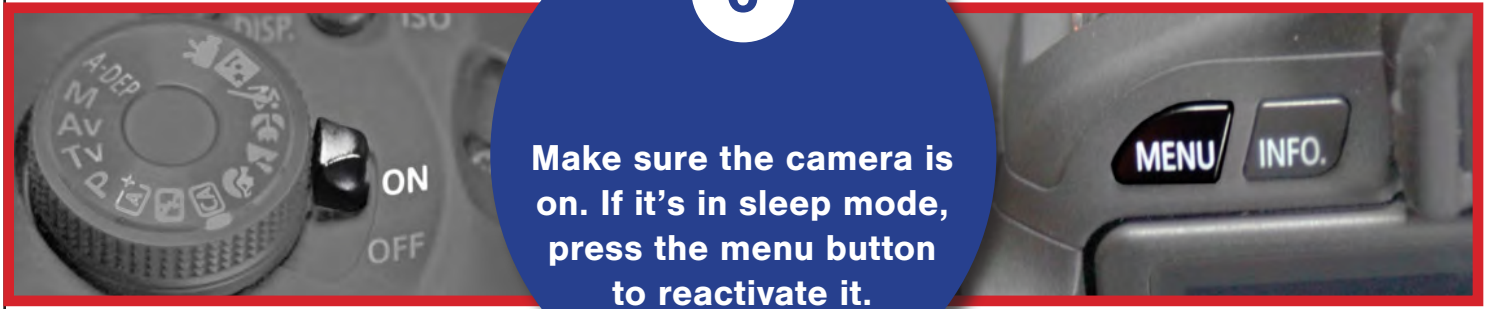
Camera Setup

5

Make sure the left and bottom lights are on.



6

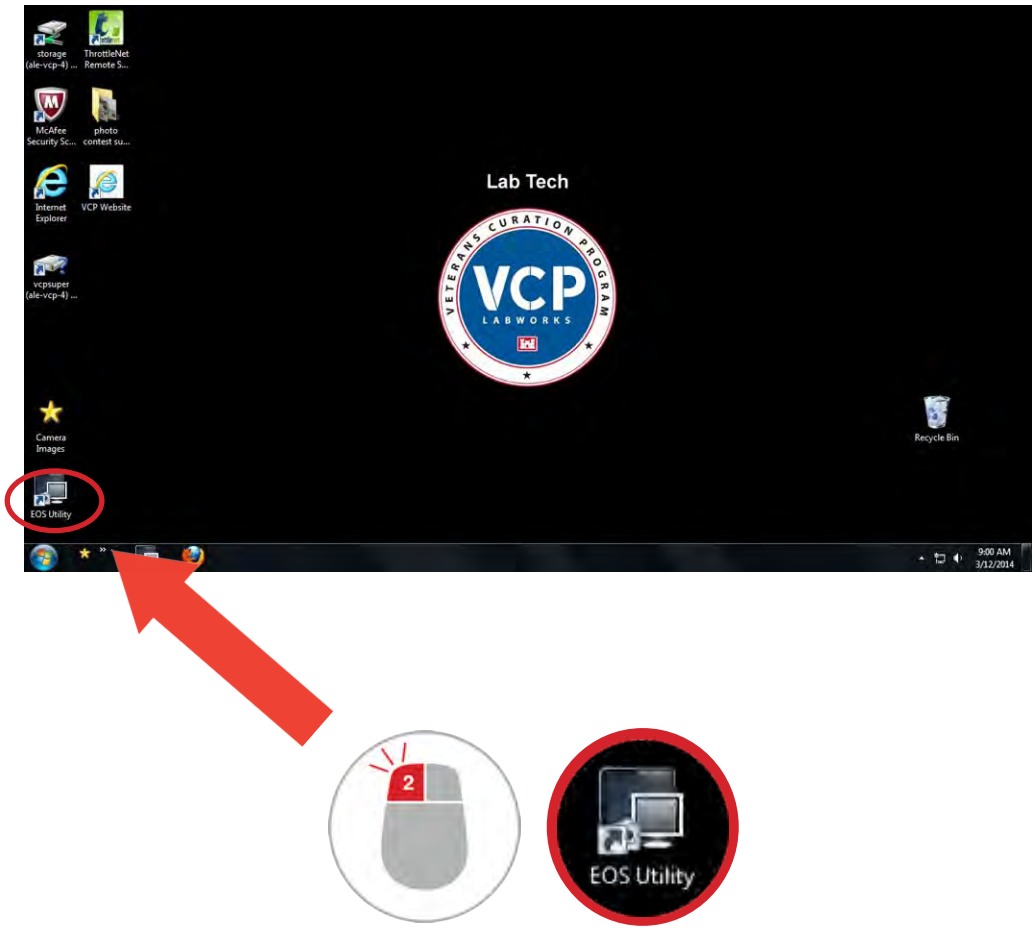


Make sure the camera is on. If it's in sleep mode, press the menu button to reactivate it.

Camera Setup

7

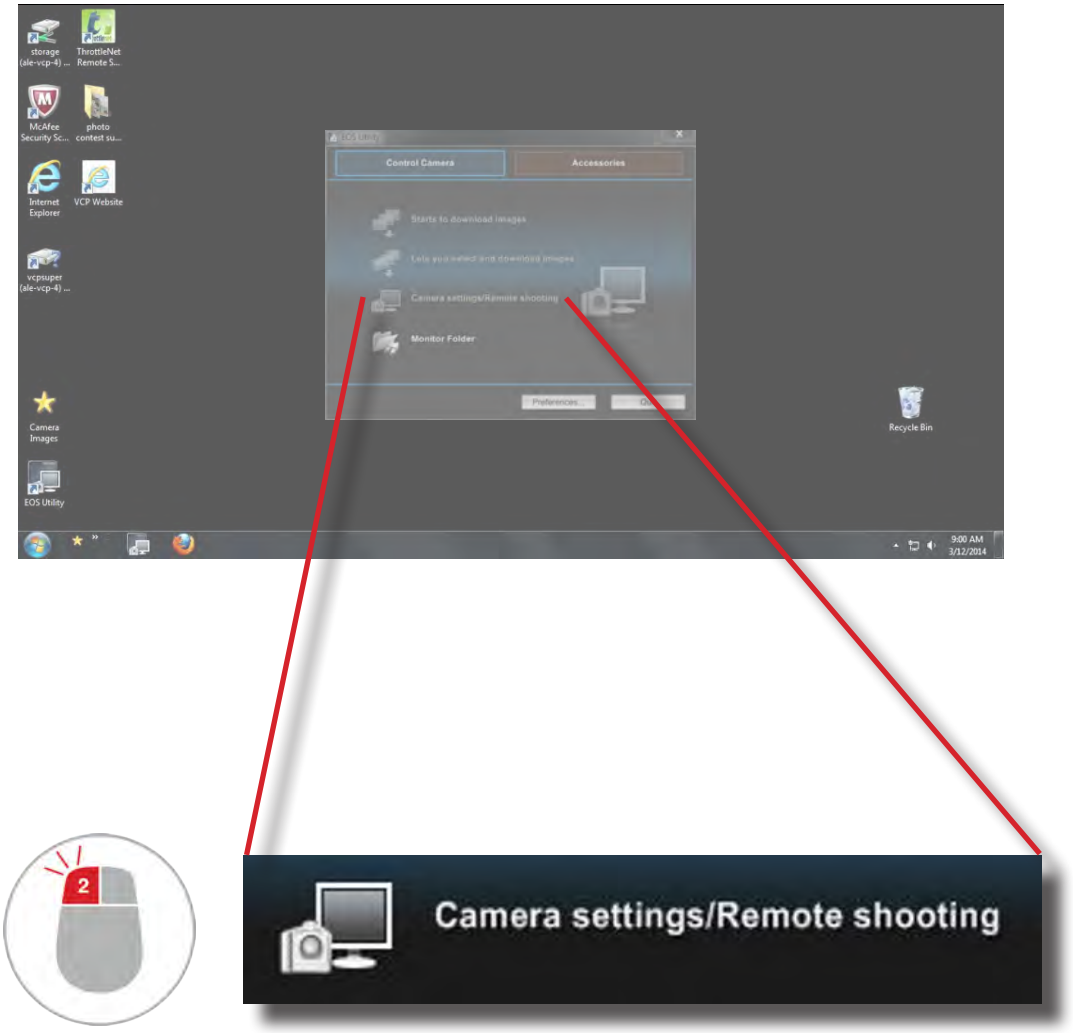
Double-click the EOS Utility icon on the desktop.



Camera Setup

8

Double-click on “Camera settings/Remote shooting.”

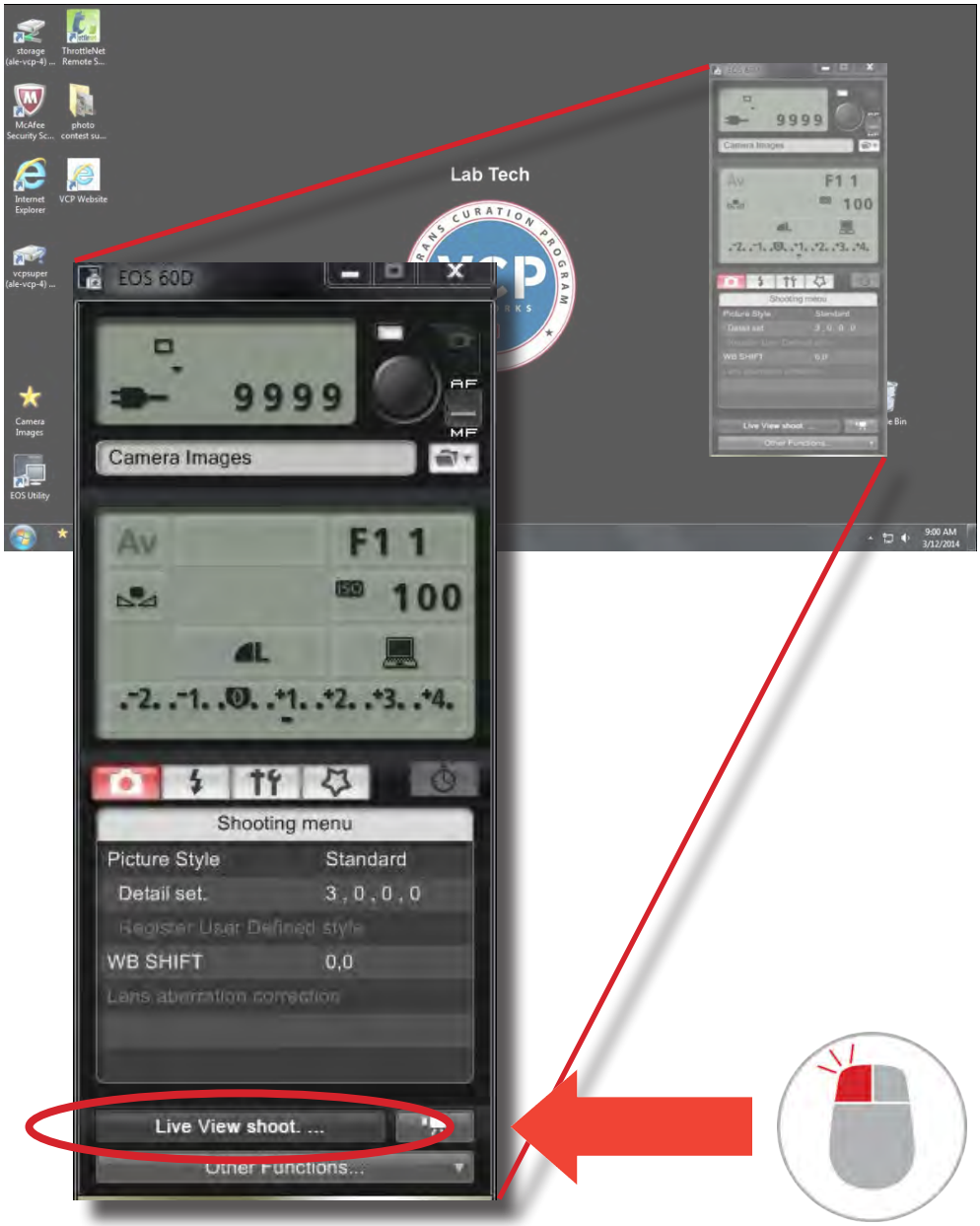


If you open the EOS Utility when the camera is in sleep mode, the “Remote Live View shooting” option will be grayed out. Press ON or MENU to “wake up” the camera (see step 6).

Camera Setup

9

In the control panel, click on “Live View shoot.”

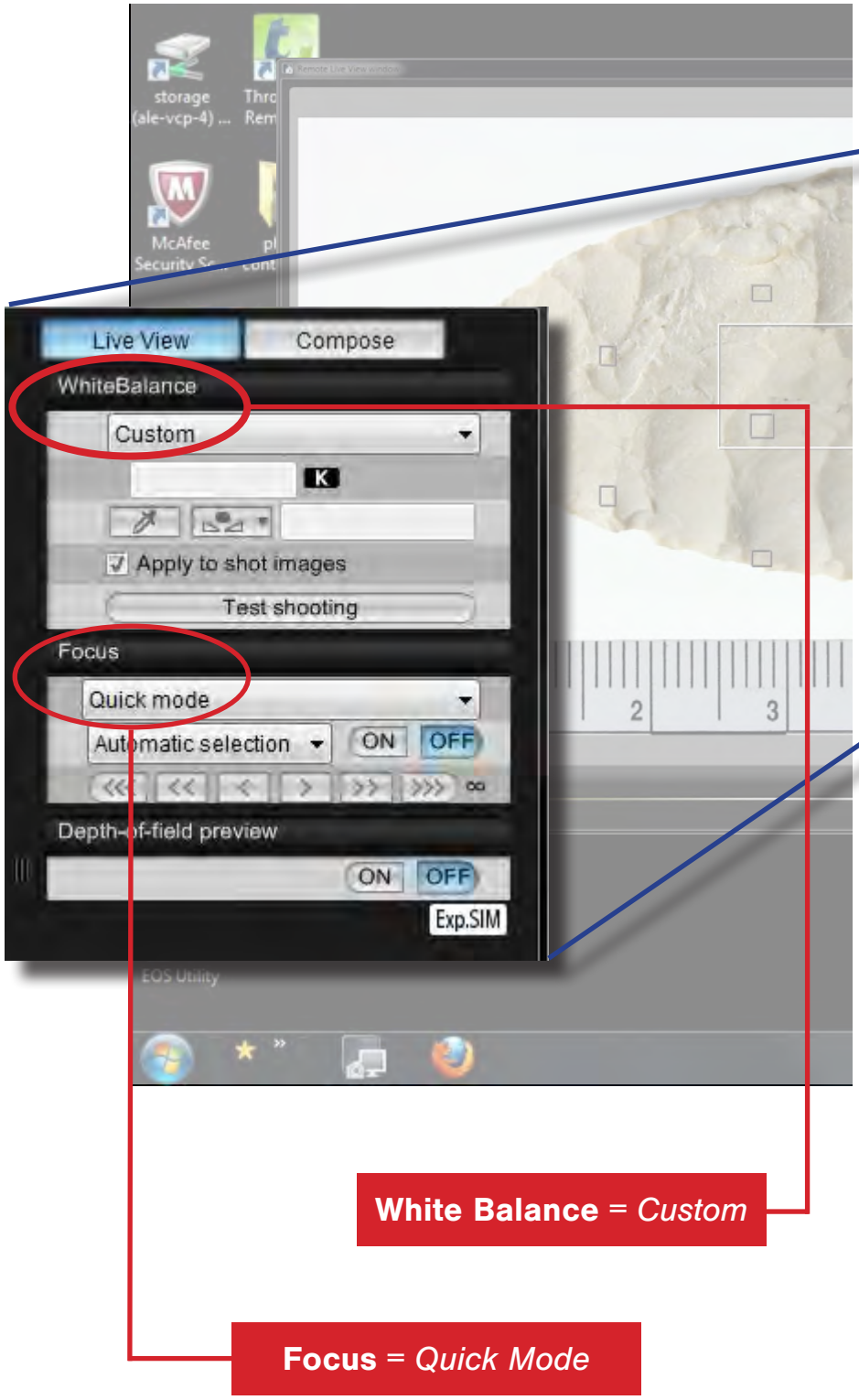


Camera Setup

10

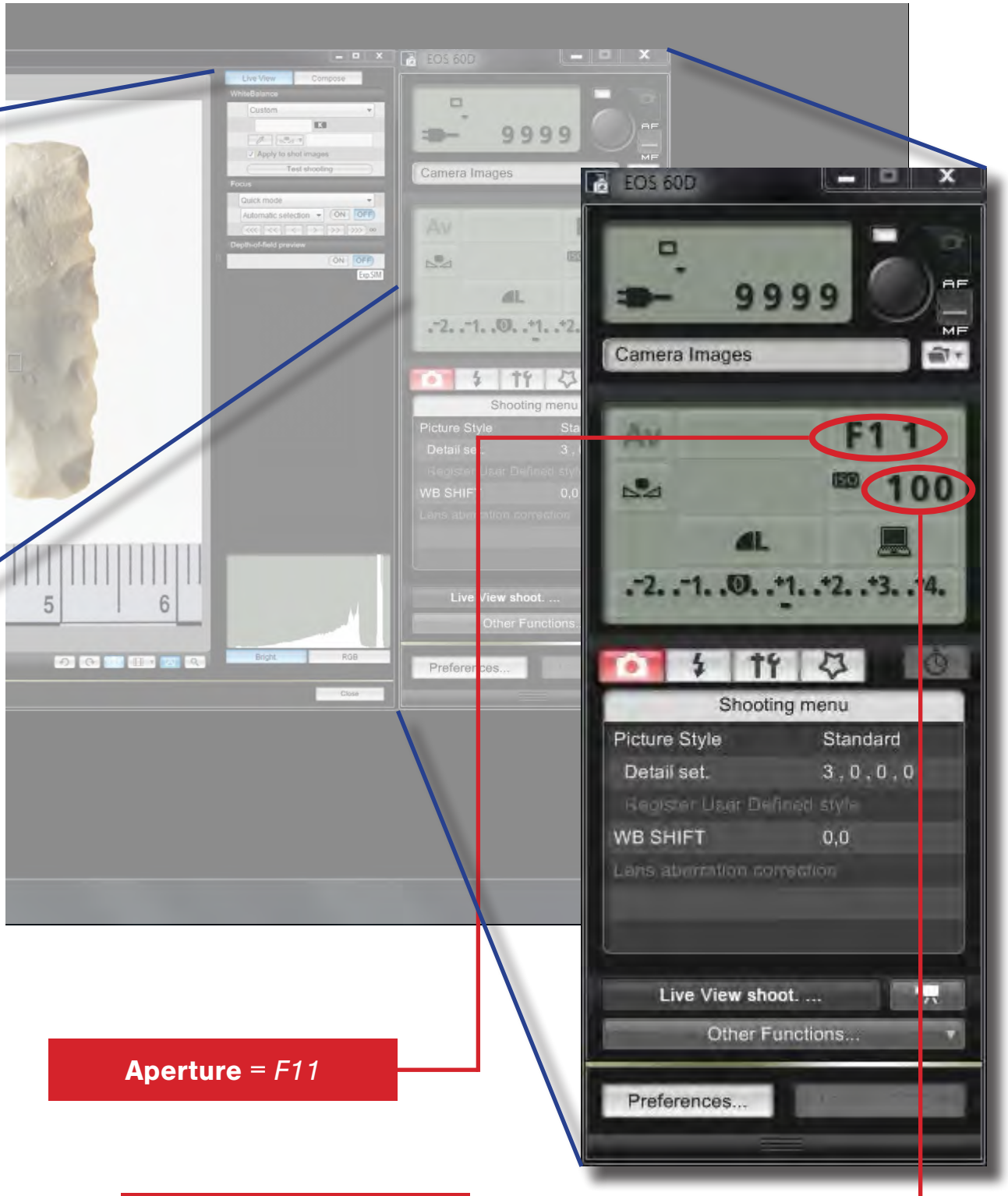
Make sure the following settings are in place:

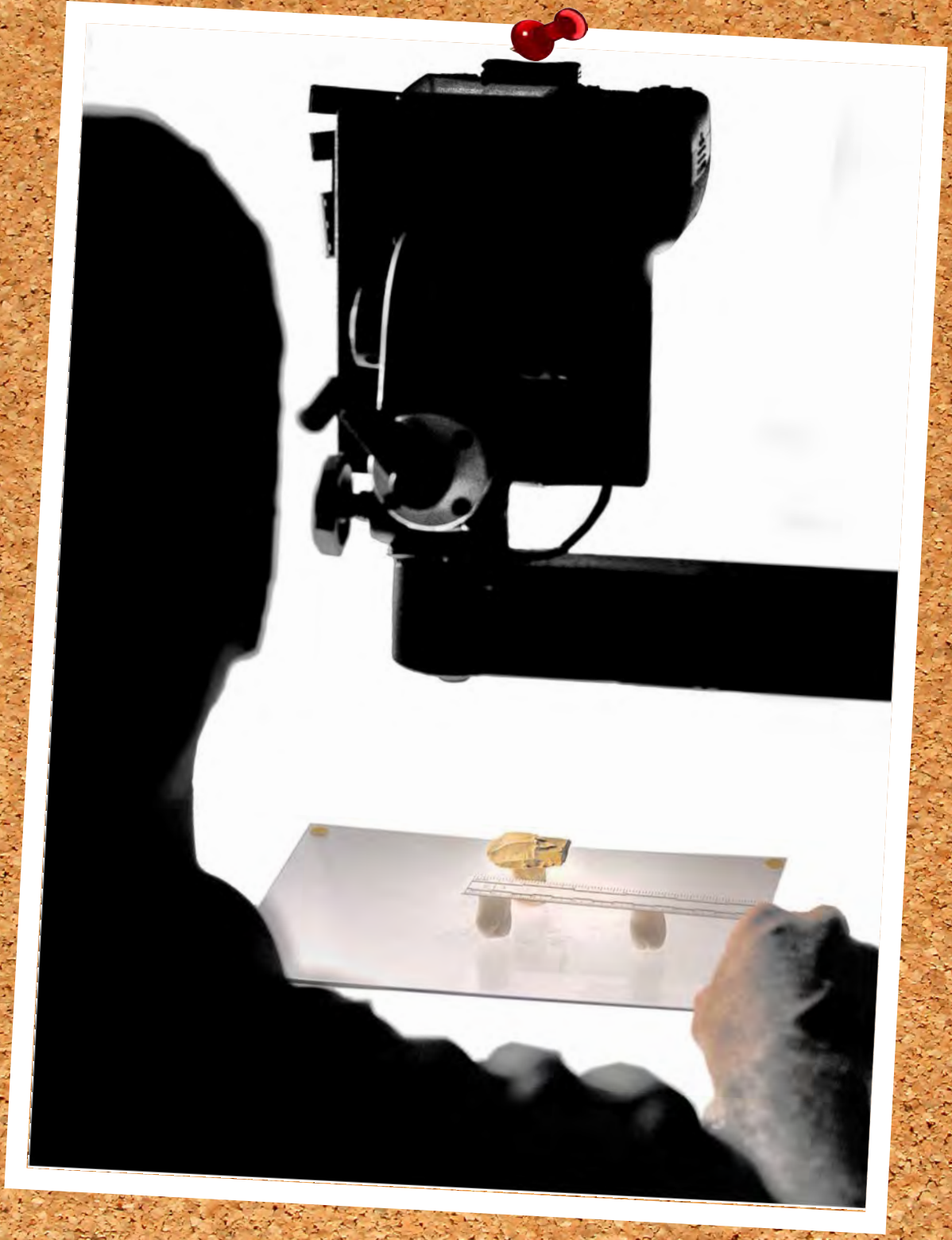
White Balance	*Custom*
Focus	*Quick Mode*
Aperture	*F11*
ISO	*100*

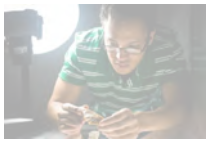


Close the Live View window any time you leave the photography station for more than a minute or two. Close the EOS Utility if you leave the station for longer than a few minutes.

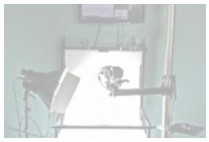
Camera Setup







Steps 1–4 **Artifact Prep**



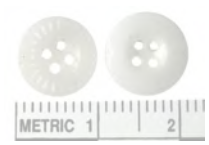
Steps 5–10 **Camera Setup**

Steps 11–15 **Composition**

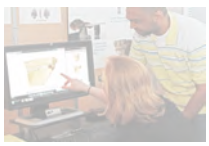
Steps 16–21 **Focus**

Steps 22–28 **Exposure**

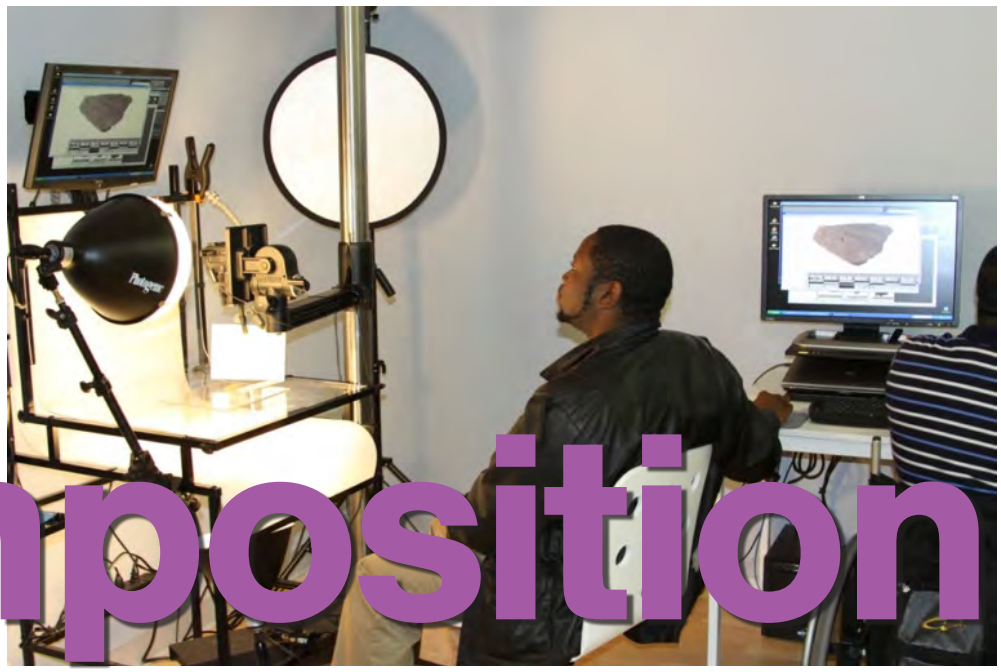
Steps 29–30 **Saving Files**



Steps 31–32 **Views**



Steps 33–35 **Quality Control**



Composition

Summary

11. Click the auto-focus button.

12. Compose the image by moving the camera stand arm up or down.

13. Click the auto-focus again to see the results.

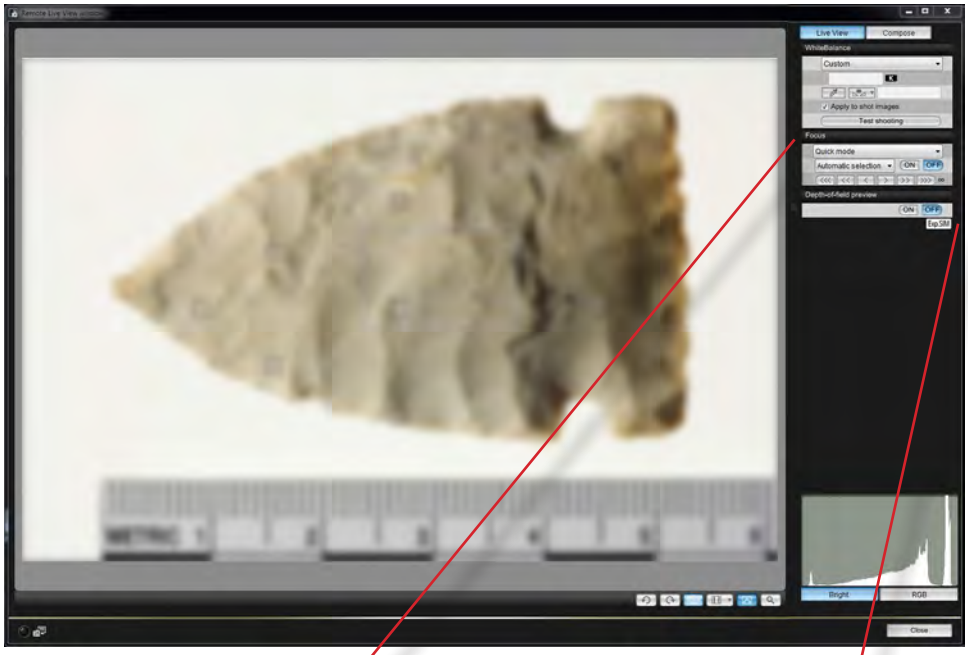
14. Repeat the process until the artifact fills the frame.

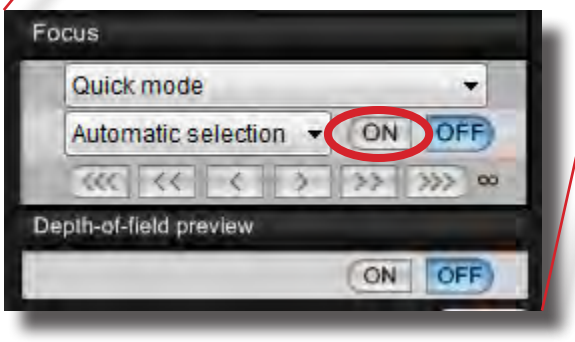
15. Use the grid lines to line up the artifact with the scale.

Composition

11

Click the auto-focus button (marked “ON” under the Quick Mode setting).





Composition

12

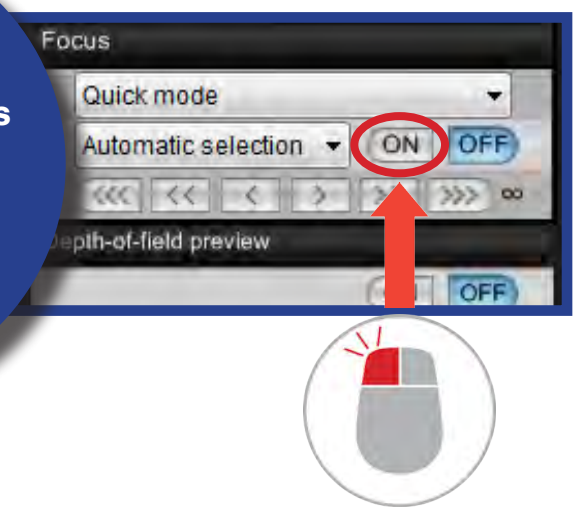
Compose the image by moving the camera stand arm up or down over the artifact.

The camera stand arm is automatically pulled upward by a counterweight. Keep your left hand on it when adjusting the height to keep it from flying up.

Composition

13

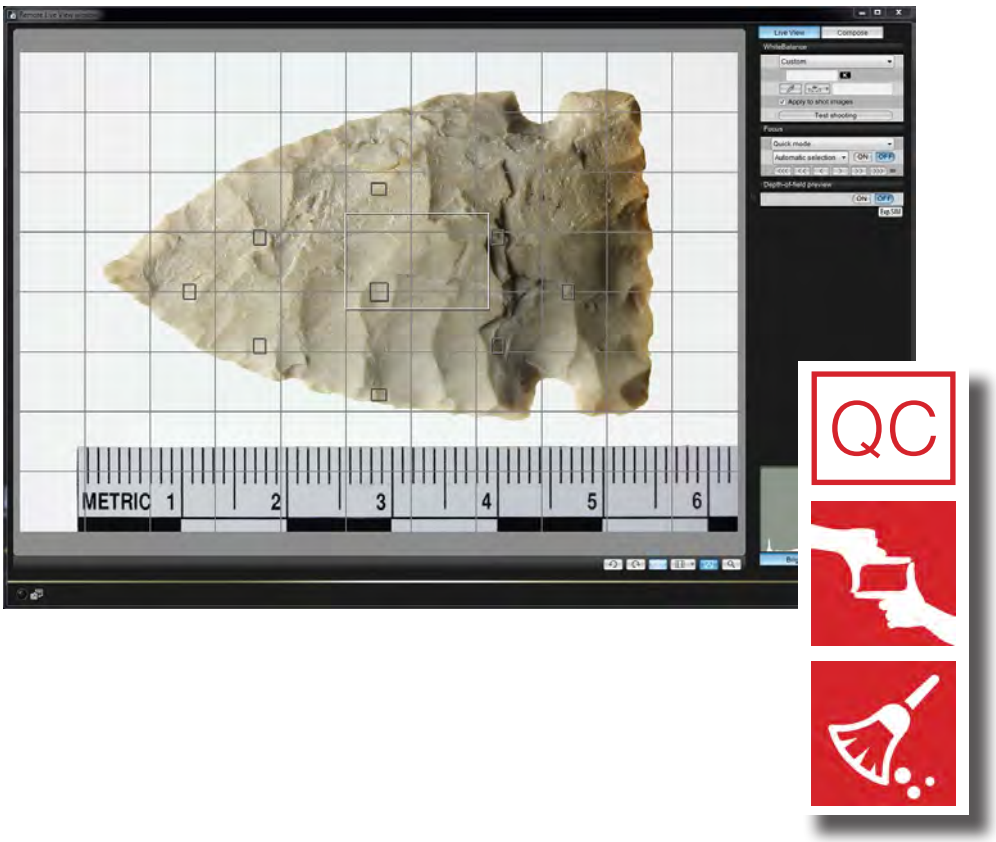
Click the auto-focus button again after you've moved the camera stand arm to see the results.



Clicking auto focus results in a *roughly* focused image; don't rely on it for your final image. You will be fine-tuning the focus in a later step.

14

Repeat this process (steps 12 and 13) until the artifact fills the frame appropriately.

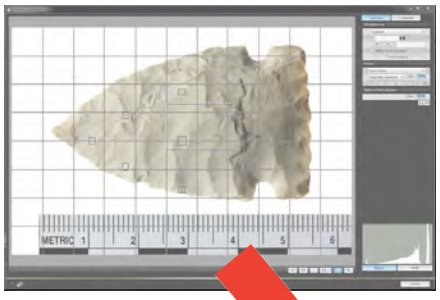


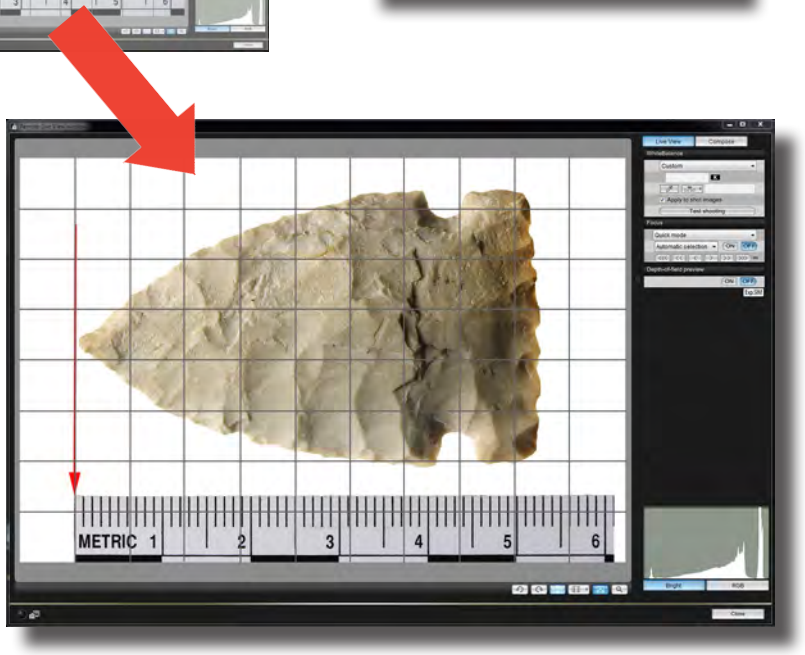
Make sure the image is dust-free and properly composed (see page 6).

Composition

15

Use the grid lines in the live view window to align the left edge of the scale with the left edge of the artifact.





Make sure the scale is parallel to the bottom of the frame and is showing **metric** units.

a

b

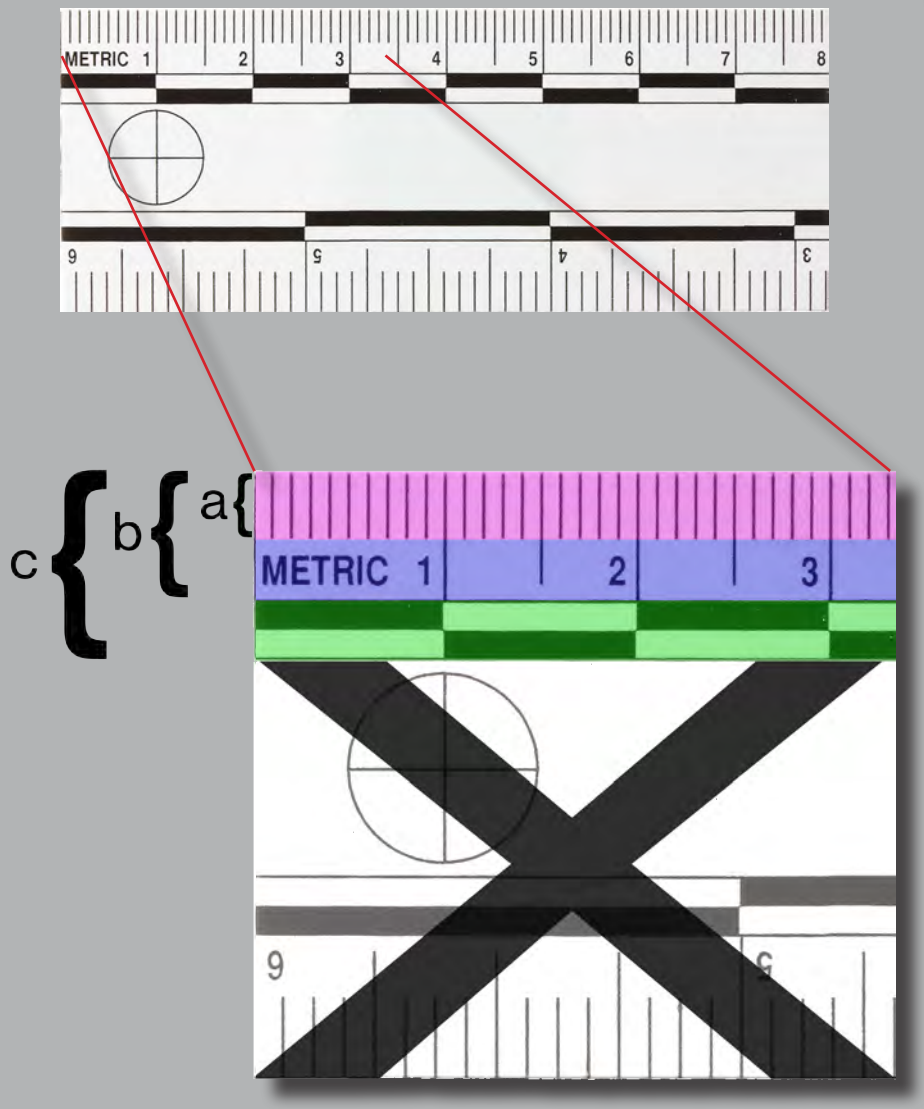
c

d

Artifacts should generally "point" to the left if they have a point *(a)* (or an implied point, as on a broken projectile point *[b]*) and be photographed "right way up" if the right way is apparent–for example, a rim sherd *(c)* or something with writing on it *(d)*.

Composition

QC



THE SCALE

How much of the scale should show in the image depends on the size of the artifact. The image can show either

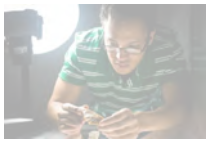
a. just the hash marks,*

b. the hash marks plus the numbers, or

c. the hash marks, the numbers, and up to two sets of scale bars.

Nothing beyond the two sets of scale bars should show in the image.

*This should only be when the artifact is smaller than 1cm in length.



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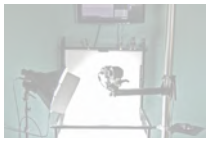

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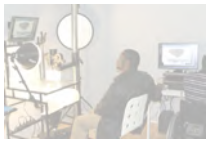

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Steps 22–28 **Exposure**

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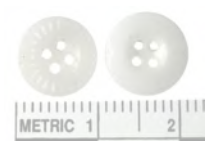
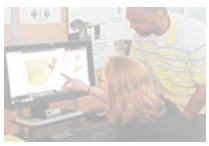
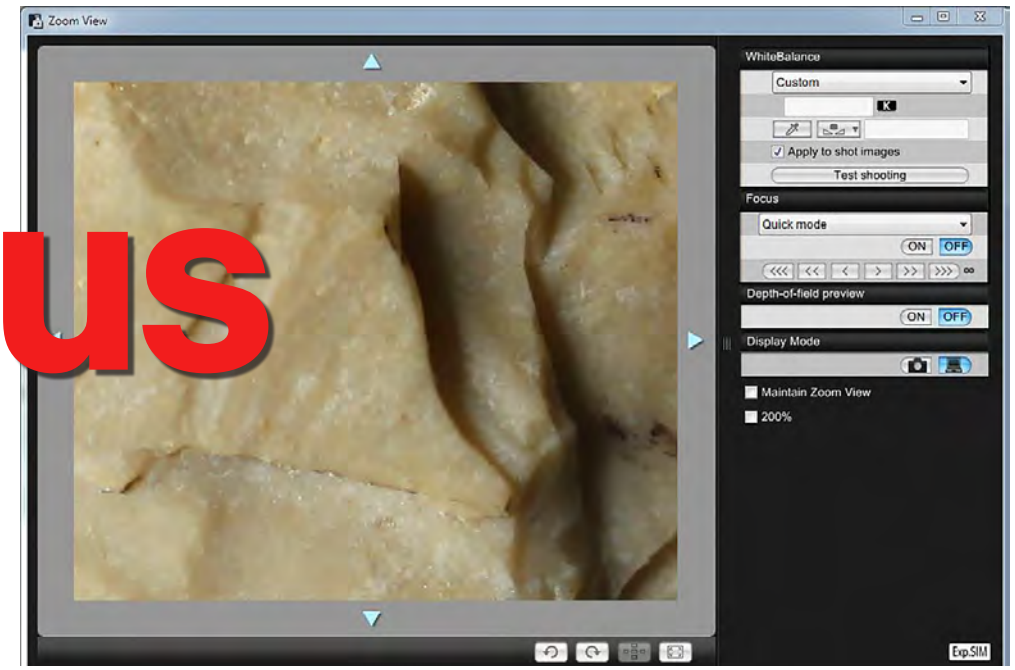


Steps 31–32 **Views**



Steps 33–35 **Quality Control**

Focus



Summary

16. Position the white rectangle over the main focus area.

17. Click the magnifying glass icon to zoom in.

18. Click on the left and right arrows until the image is in focus. Close the zoom view window.

19. Click the shutter to capture the image.

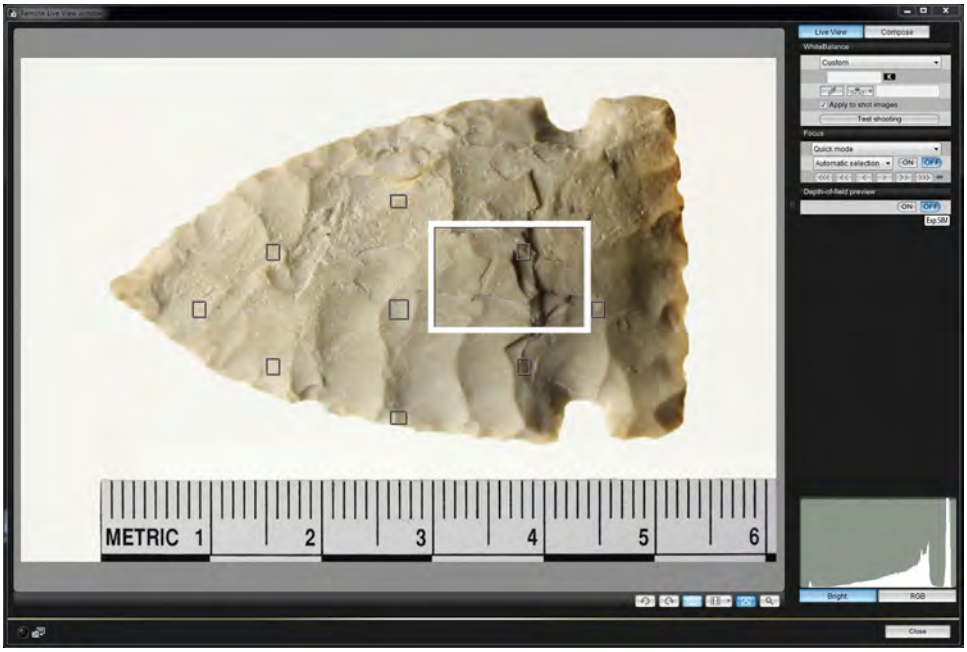
20. Double-click the image to view it and check results. Do not delete any images.

21. Repeat if necessary.

Focus

16

Using the mouse, position the white rectangle over the area you want to check for fine focus.



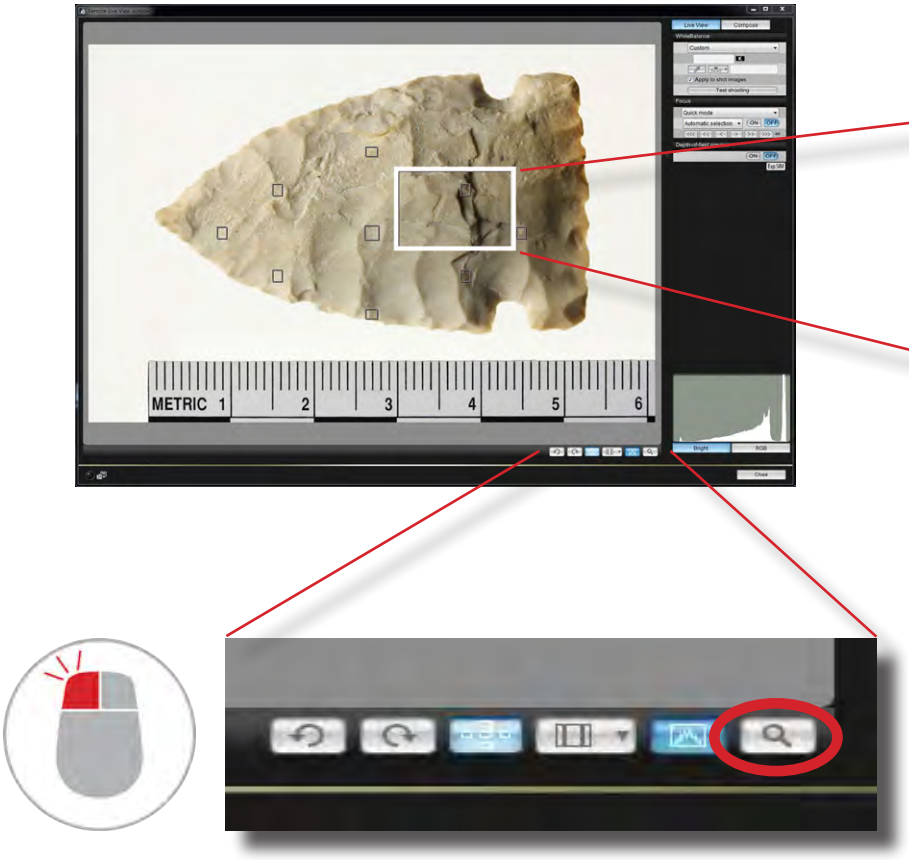
THE WHITE RECTANGLE
The white rectangle controls both the center of focus and how dark or light the captured image is.

THE FOCUS AREA
The area to check for focus will be different for different artifacts; for example, if an artifact has a high point, you should check that area for focus.

Focus

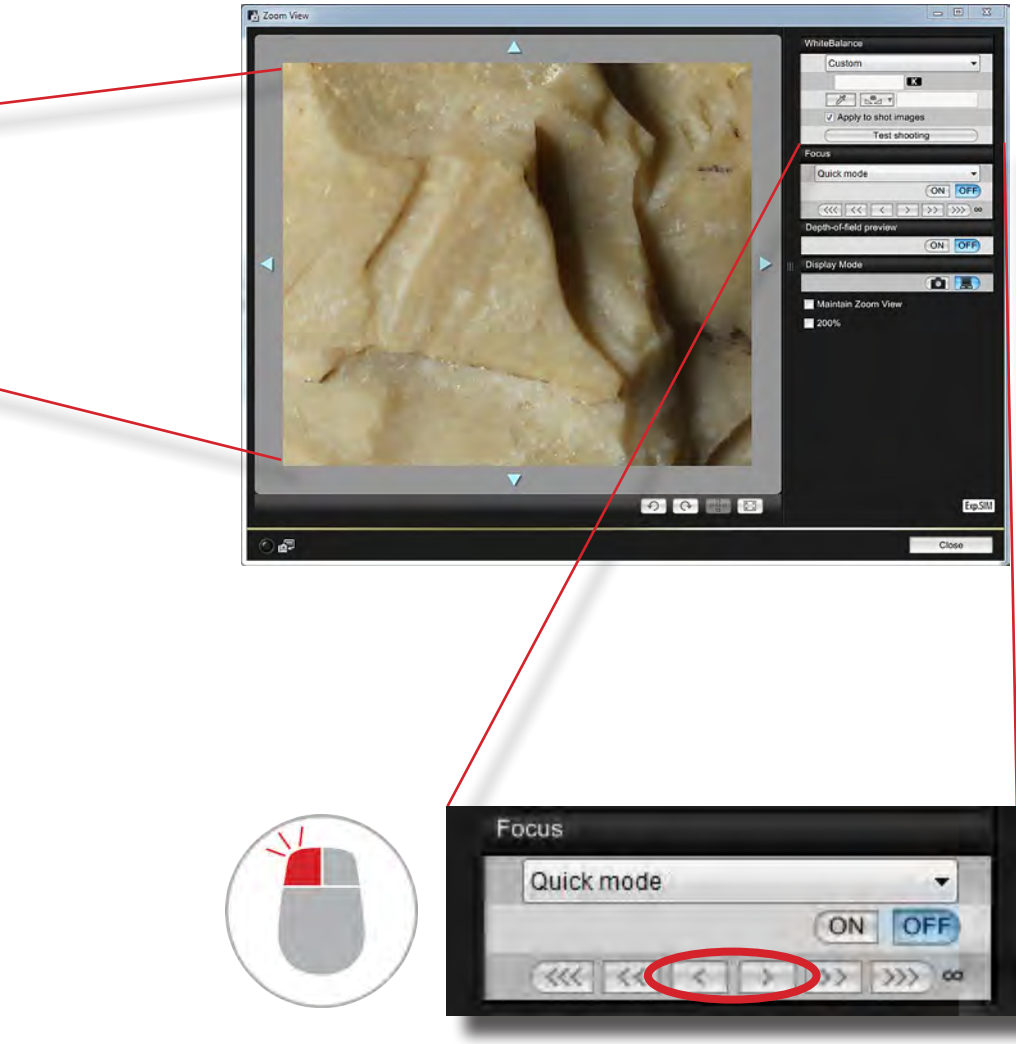
17

Click the magnifying glass to zoom in on that area.



Focus

QC



18

In the Zoom View window, click on the left and/or right arrows until the part of the artifact you've enlarged comes into sharp focus, then close the Zoom View window.

WHICH MONITOR?
Use the large, high-resolution monitor on the desk—not the one above the light table—to check your images for focus and exposure, not the small monitor attached to the light table.

Focus

19

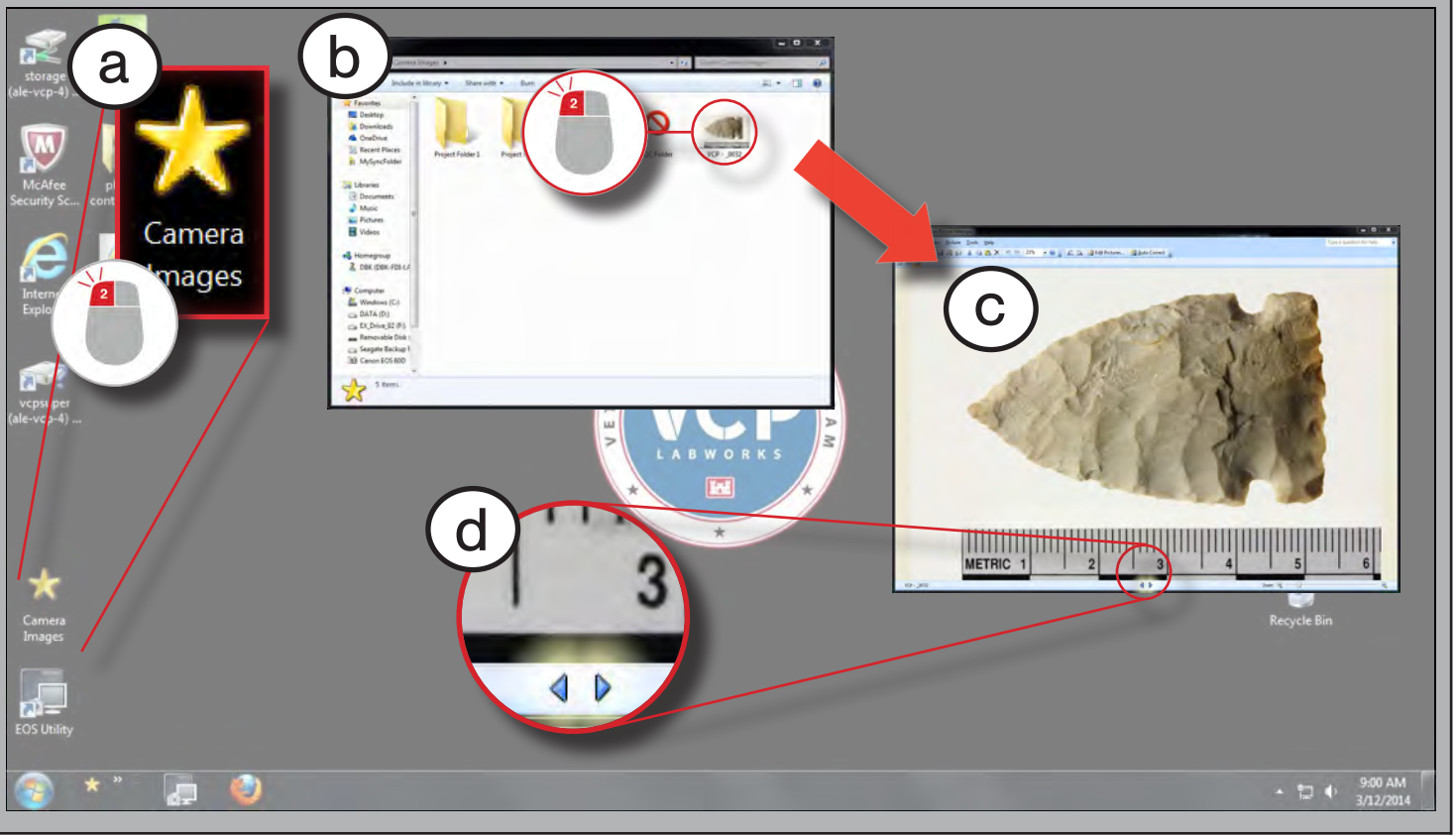
Click the shutter to capture the image.

Evaluate the picture, not the live view. Live View and Zoom View do not show what the final image will look like. To see the final image, you must click the shutter and open the image.

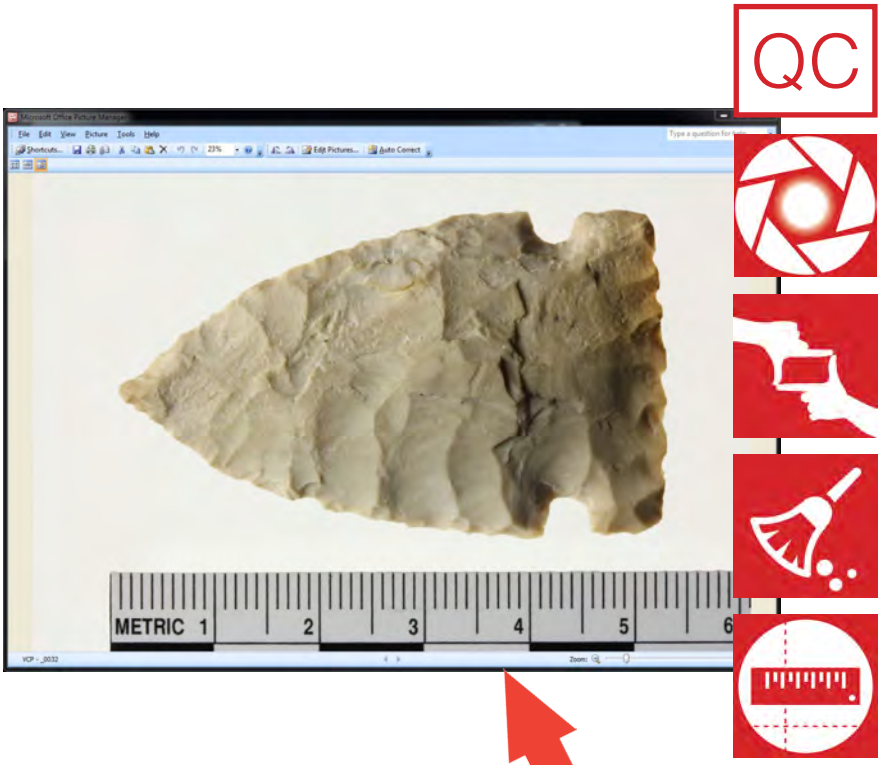
Checking Your Work

After you click the shutter and capture an image, you will need to open the Camera Images folder *(a)* on the desktop to view the image. Double-click on an image *(b)* to view it; once the image-viewing application is open *(c)*, you can use its navigation buttons *(d)* to go from image to image and compare.* Do the same when checking for exposure.

*Microsoft Office Picture Manager is shown here. Your lab may use a different, but comparable, program.

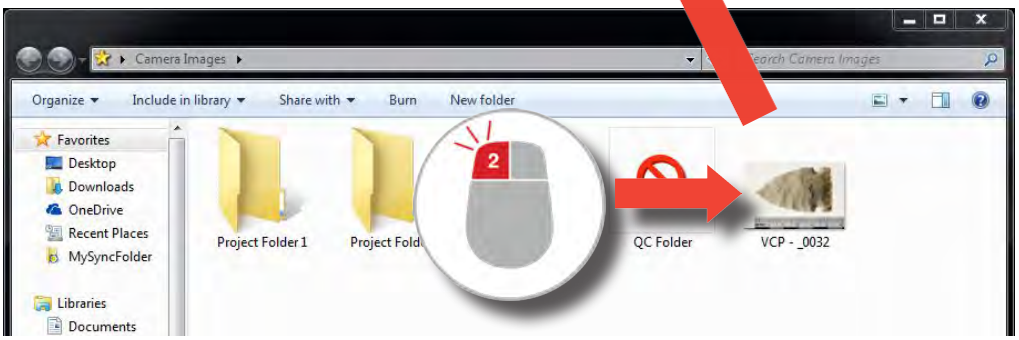


Focus



20

Double-click the image to view it and check your results. Check for quality-control issues.



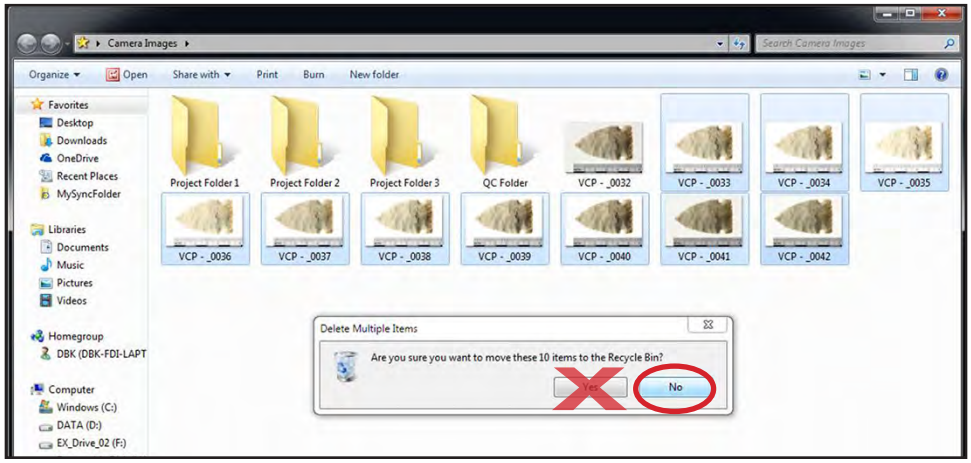
Only the photos you've been taking should be in the Camera Images folder; if you see images you didn't take in the folder, alert a lab manager.

21

If necessary, repeat this process (steps 18–20) until the artifact is in sharp focus.

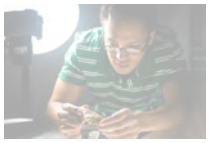
Focus

DO NOT delete any of the images you've taken until *after* the lab manager has conducted quality control.

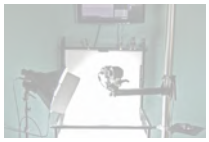


Extension Tubes

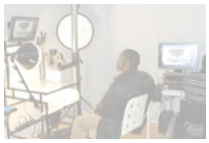
An extension tube may be necessary to bring some very small artifacts in focus. Consult with a lab manager.



Steps 1–4 **Artifact Prep**



Steps 5–10 **Camera Setup**

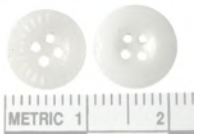


Steps 11–15 **Composition**

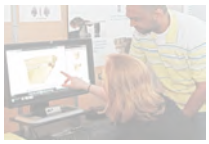
Steps 16–21 **Focus**

Steps 22–28 **Exposure**

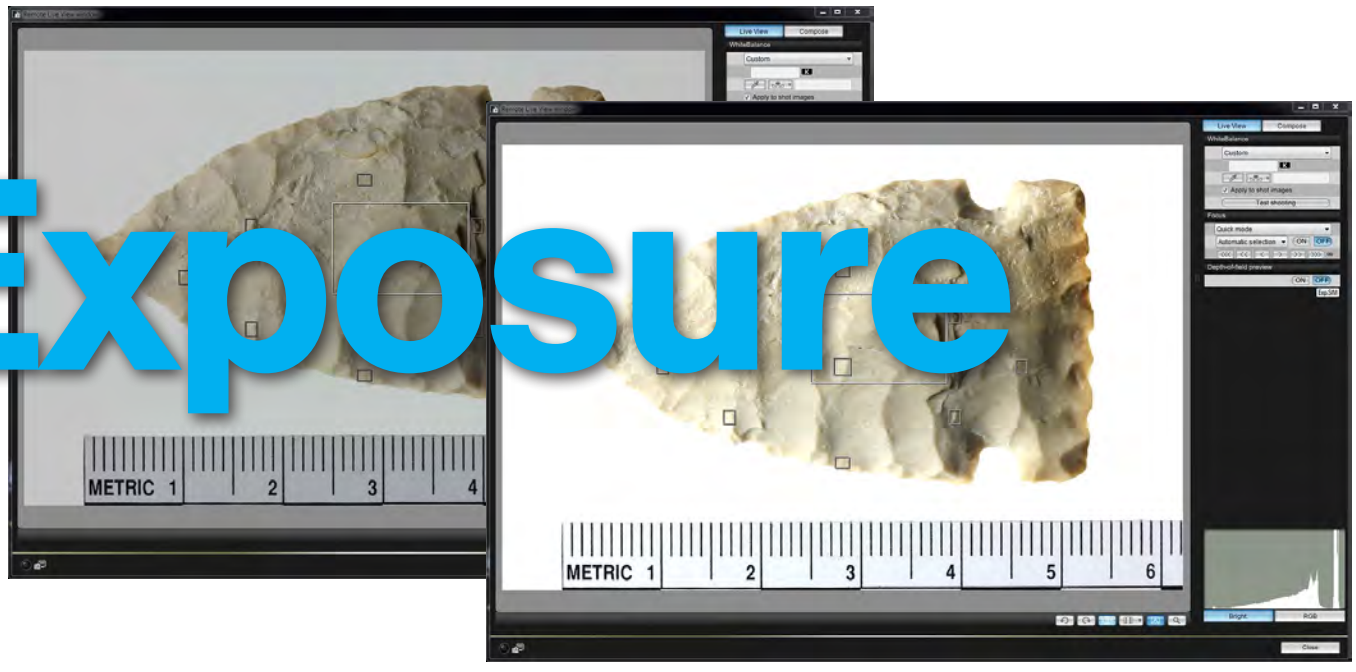
Steps 29–30 **Saving Files**



Steps 31–32 **Views**



Steps 33–35 **Quality Control**



Summary

22. Position the white rectangle so it excludes any background.

23. Double-click on the Exposure Value display.

24. Adjust the exposure by moving the hash marks right (lighter) or left (darker).

25. Click the shutter to capture the image.

26. Double-click the image to view it and check results.

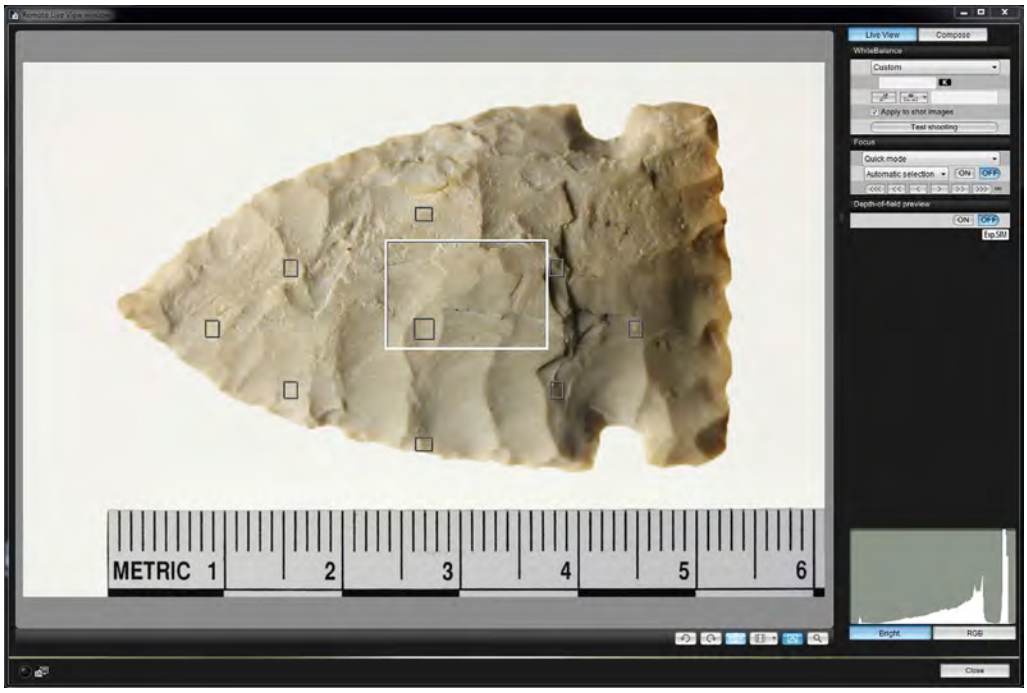
27. Repeat if necessary. Do not delete any images.

28. Once you've found the best exposure, adjust the side light if necessary.

Exposure

22

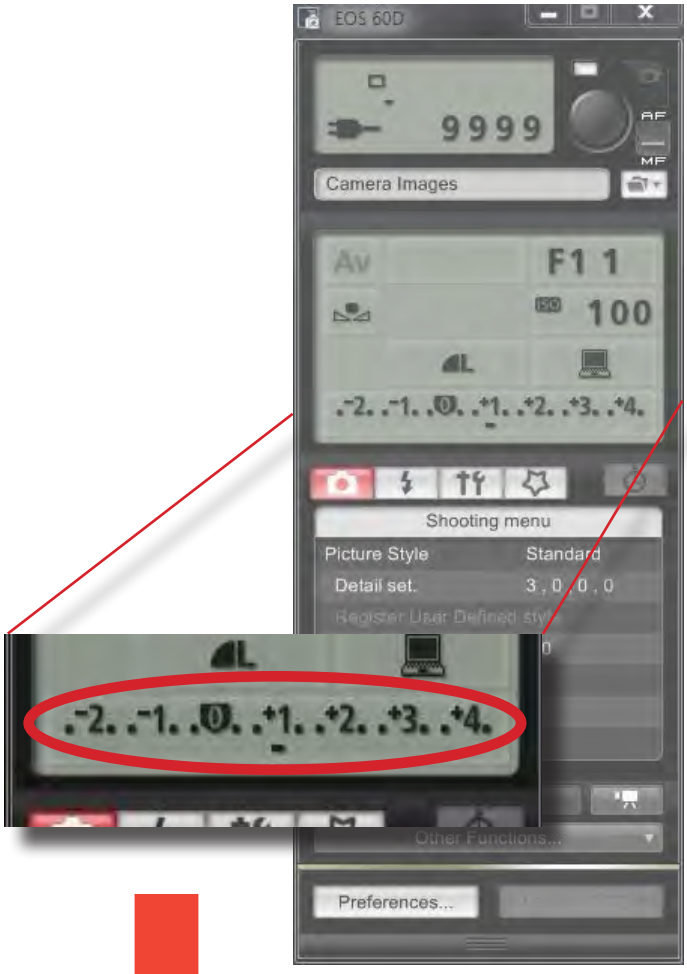
If necessary, move the white rectangle so that it includes as little of the white background as possible.

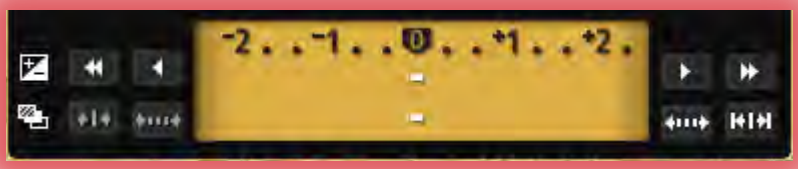


Exposure

23

Double-click (or right-click) on the Exposure Value display.

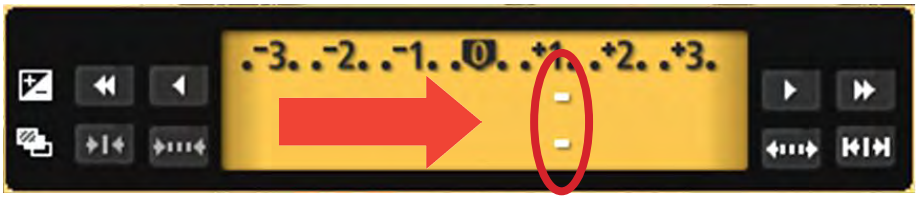




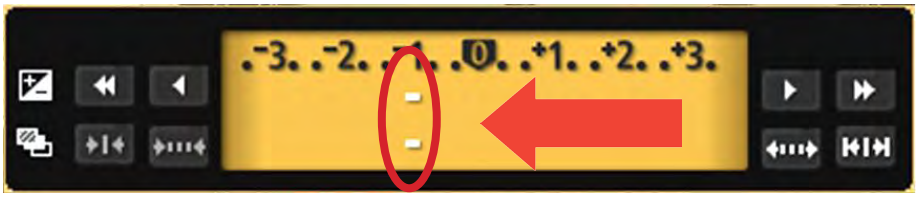
WHERE'D IT GO?
The exposure control automatically hides when you move the mouse pointer outside of it.

Exposure

RIGHT = lighter



LEFT = darker



24

Move the hash marks to the right to make the image lighter (“right = light”); move them to the left to make the image darker. Adjust as necessary.

QC

TOO DARK

TOO LIGHT

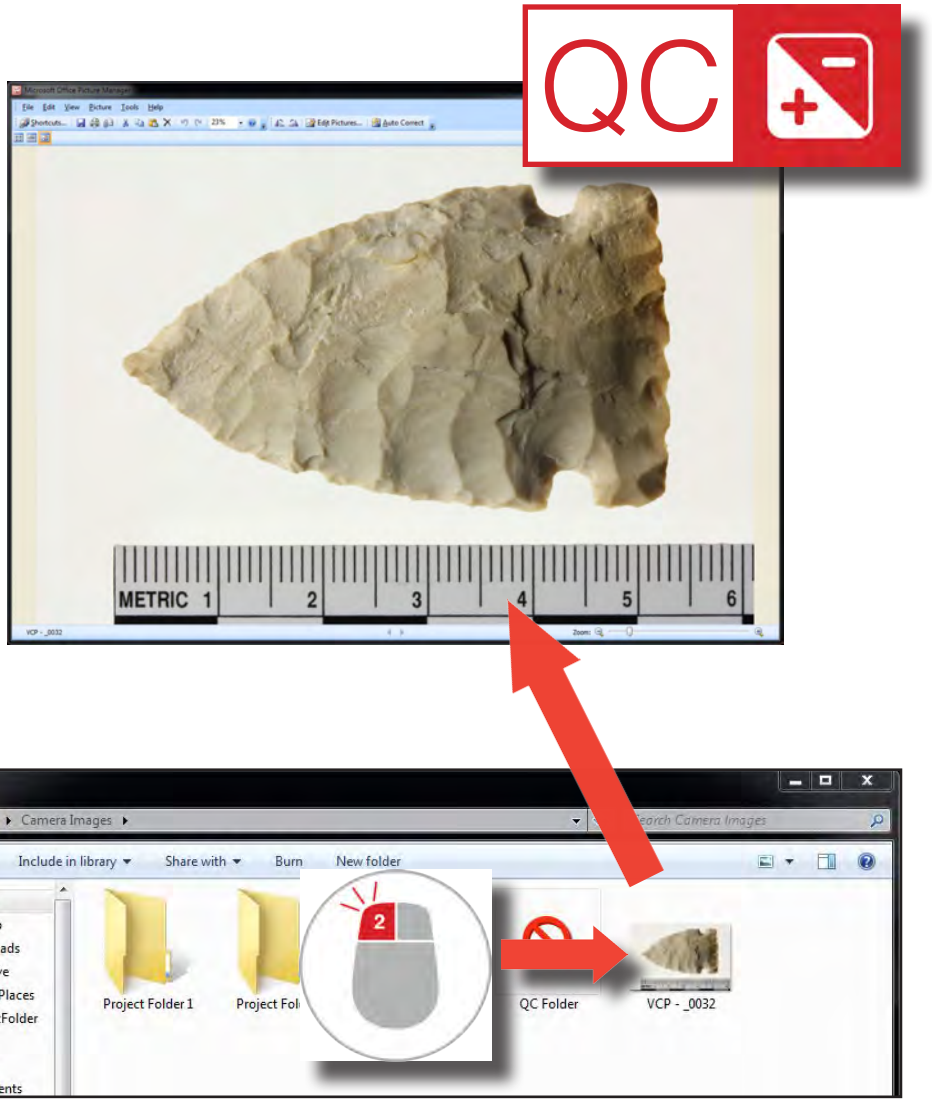
Exposure

25

Click the shutter to capture the image.

26

Check your results by opening the image in an image-viewing program.



In some special cases, an aperture of F22 may result in a better exposure. Consult with one of the lab managers.

Exposure

27

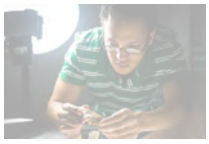
If necessary, repeat this process (steps 23–26) until you find the best exposure. Do not delete any of the test images you've taken.

28

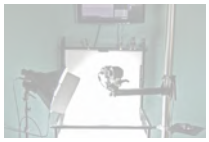
If necessary, adjust the position of the side light to make the artifact look as vivid and natural as possible. Ask a lab manager for help if you are unsure. Take a photo each time you adjust the lighting.

Look at the light and shadow in your photos. Is there enough shadow to show texture and details? Is there too much shadow, obscuring details? Does the artifact look "flat?"

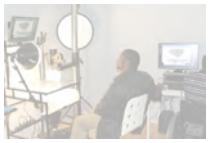

3. Scale should be located
at the point of focus



Steps 1–4 **Artifact Prep**



Steps 5–10 **Camera Setup**

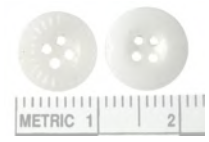


Steps 11–15 **Composition**

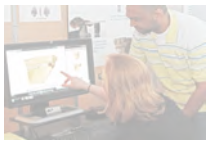
Steps 16–21 **Focus**

Steps 22–28 **Exposure**

Steps 29–30 **Saving Files**



Steps 31–32 **Views**



Steps 33–35 **Quality Control**

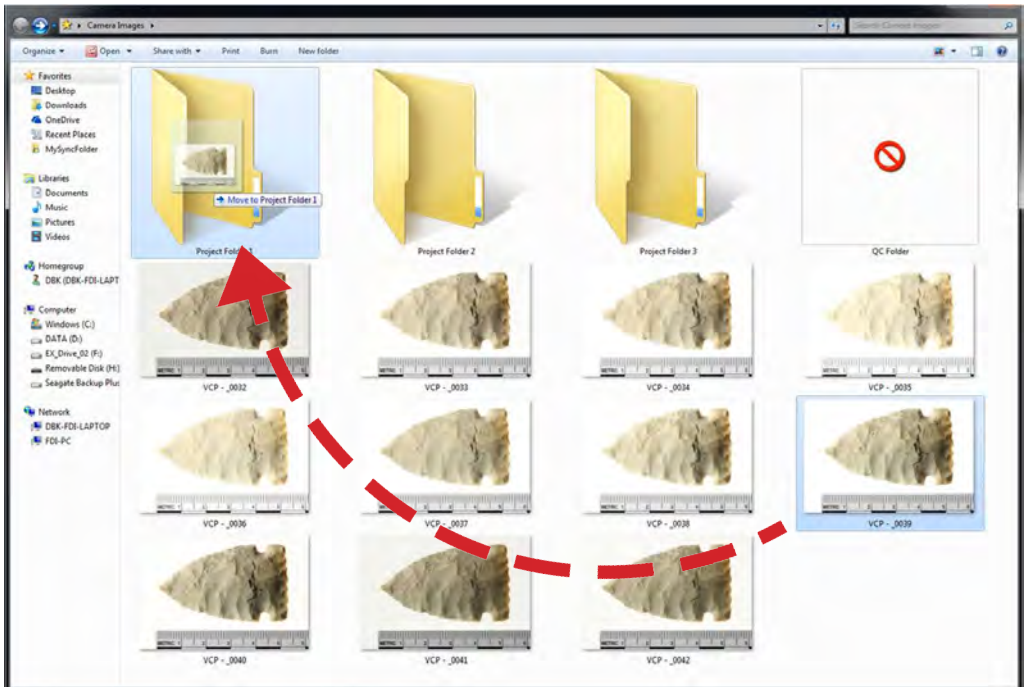
Saving Files

Summary

29. Move the best version of each image into the appropriate project folder.

30. Rename the image file according to the artifact's ID number (see table on page 35).

Saving Files



29

Move the best version of each image into the appropriate project folder by dragging and dropping.

After adjusting focus and exposure, you will typically end up with multiple images of each artifact. This is good, because it will give you and the lab manager a wide range to compare and choose from.

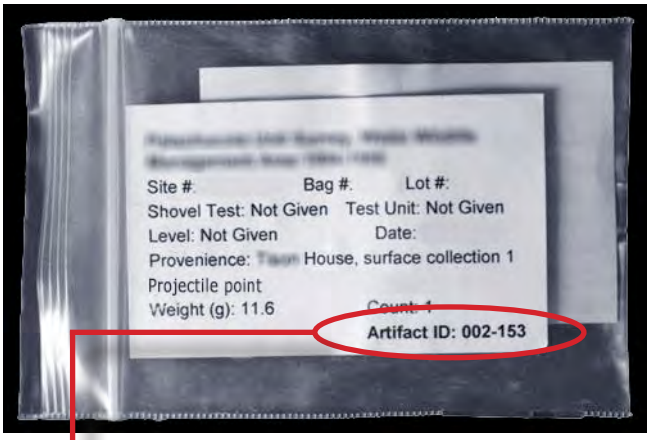
•

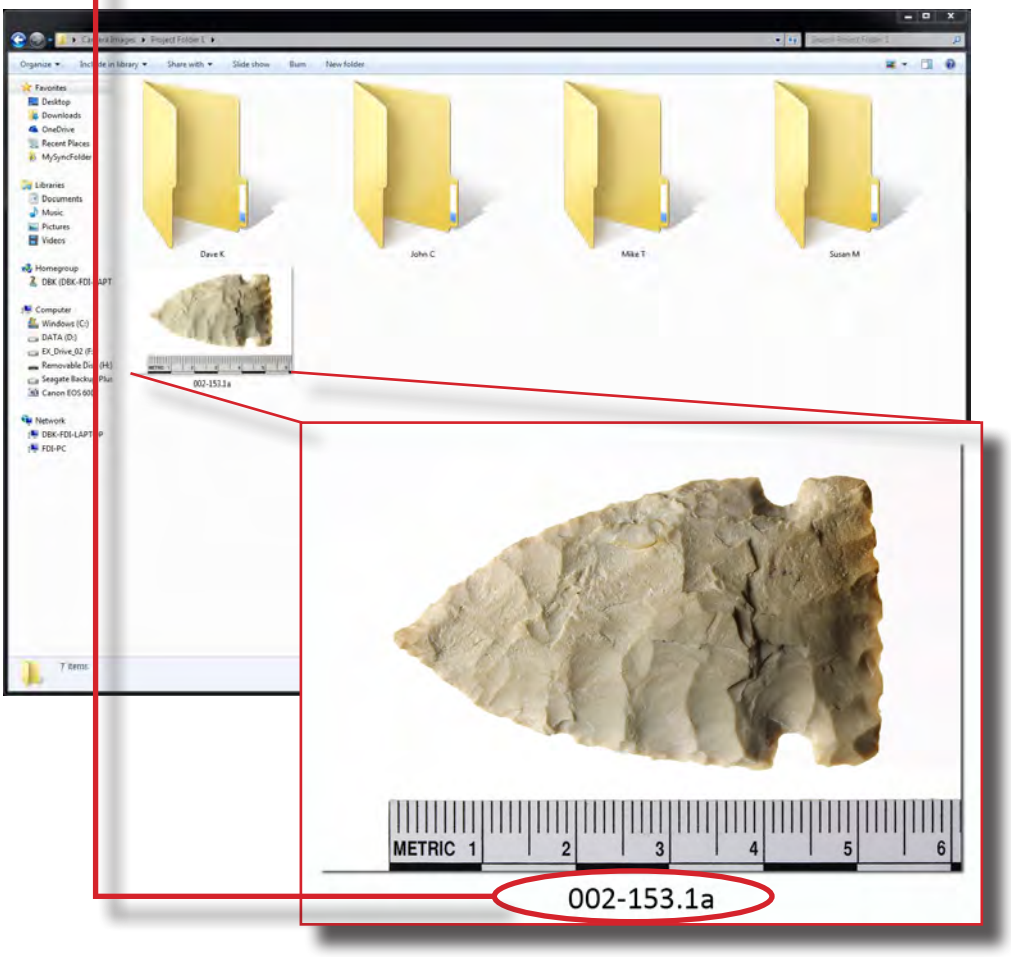
The project folder contains subfolders with the names of laboratory technicians.

Saving Files

30

Rename the image file according to the artifact's ID number. See the table on the opposite page.



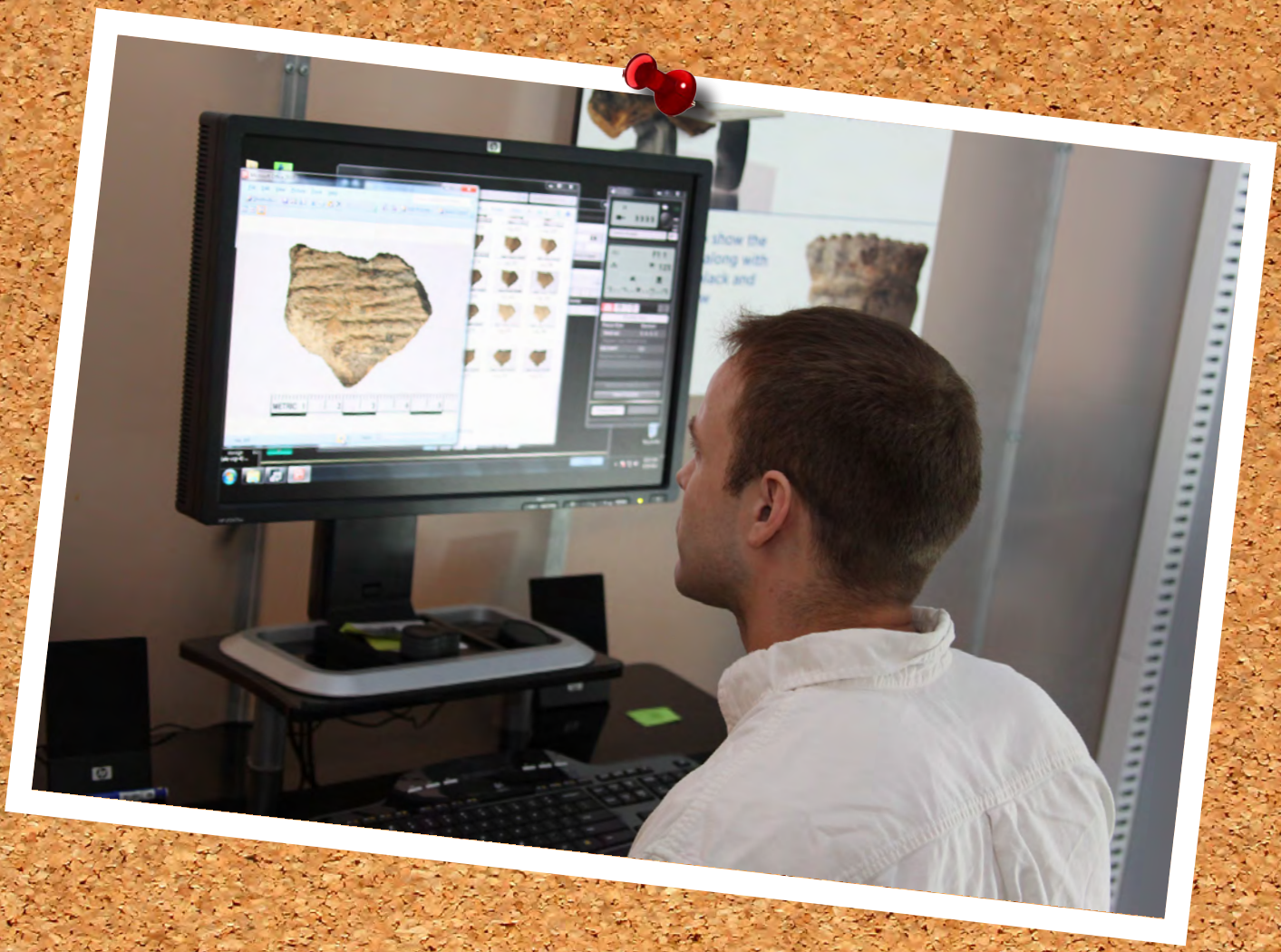


To rename a file, right-click on the file and choose "Rename" from the menu or select the file and press the F2 key on the top row of your keyboard.

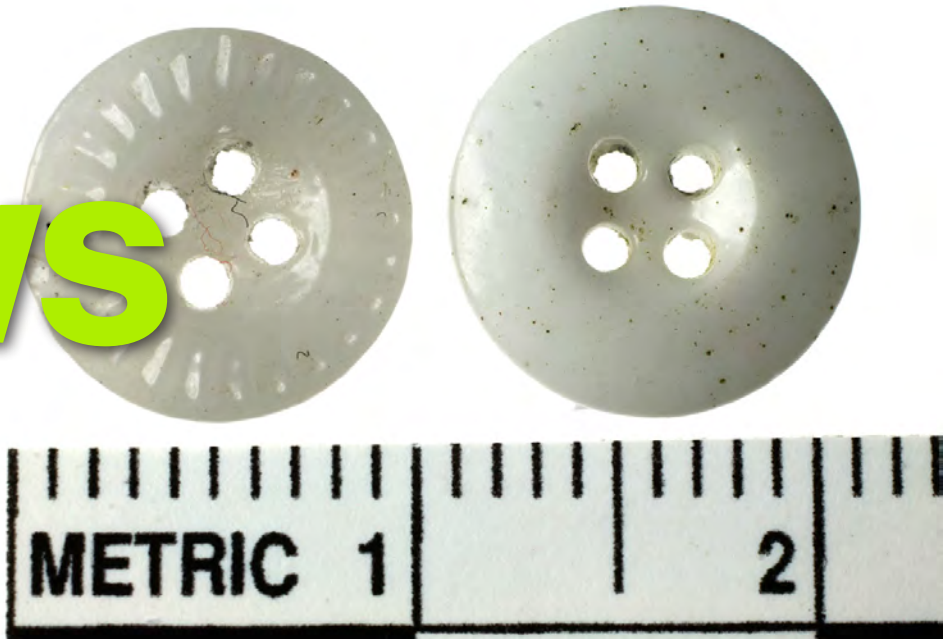
Saving Files

HOW TO NAME ARTIFACT IMAGE FILES						
		Artifact ID No.	+	View Extension	=	File Name
First artifact	Exterior	001-001	+	.1a	=	**001-001.1a**
	Interior	001-001	+	.1b	=	**001-001.1b**
	Profile	001-001	+	.1c	=	**001-001.1c**
	(etc.)					
Second artifact	Side	001-001	+	.2a	=	**001-001.2a**
	Other side	001-001	+	.2b	=	**001-001.2b**
	Profile	001-001	+	.2c	=	**001-001.2c**
	(etc.)					
Group		001-001	+	.1g	=	**001-001.1g**

Be careful to rename your files ***exactly*** as indicated in this table. If you are unsure, ask a lab manager.



Views



Summary

31. Take all the necessary views for each artifact.

32. Rename each file with the artifact number and view extension (see step 30).

Views

31

Photograph all the necessary additional views for each artifact, as shown on the following pages.

32

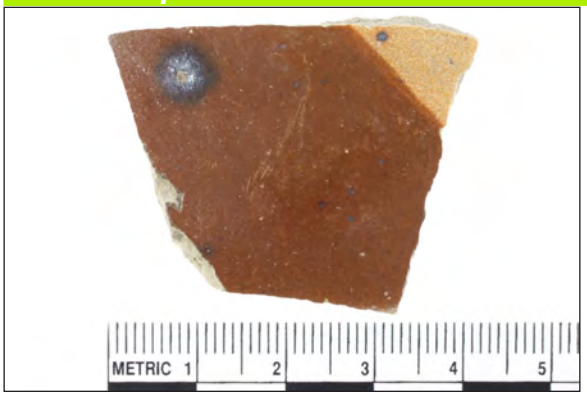
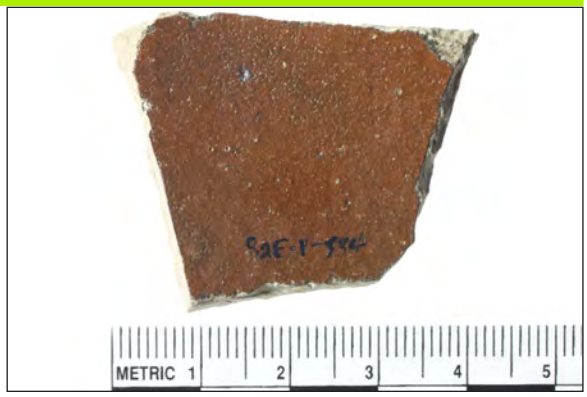
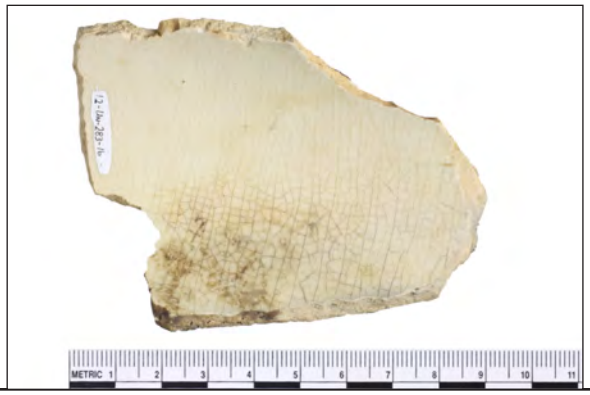
Rename all views captured with the proper artifact number and view extension, as shown in step 30.

Check the focus and composition (steps 11–21) in every new view of each artifact—they may need to be readjusted.

Views

Ceramics

Body Sherds

.1a	.1b
Prehistoric	
	
	
Historical period	
	
	

Views

Ceramics

Rim Sherds

.1a **.1b** **.1c**

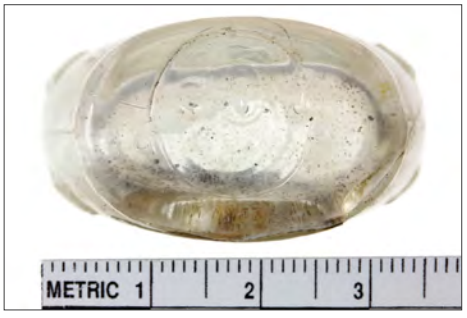
Prehistoric

Historical period

Views

Glass

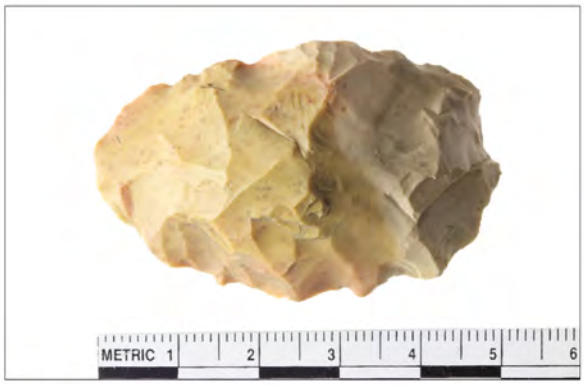
Bottles

.1a	.1b	.1c
		
		
		
		

Views

Lithics

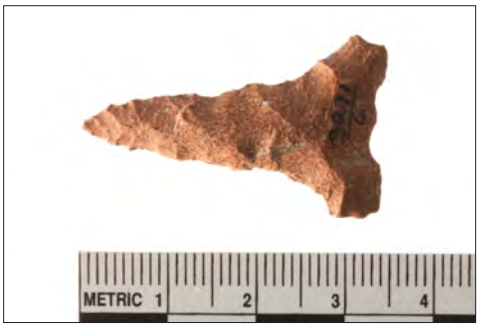
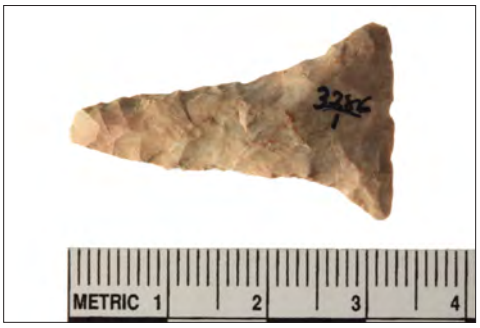
Bifaces

.1a	.1b
	
	
	
	

Views

Lithics

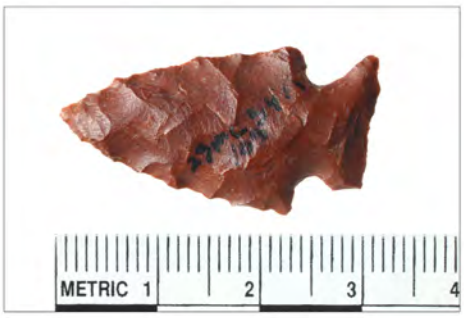
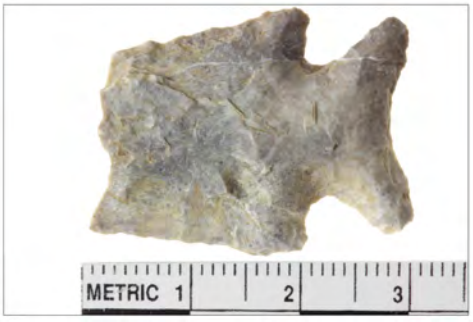
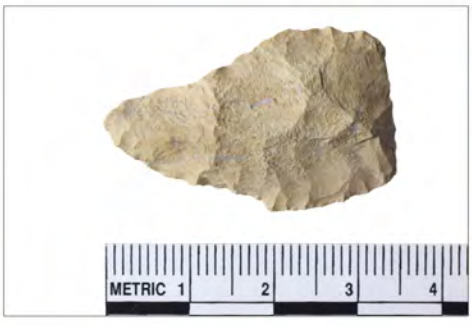
Drills

.1a	.1b	.1c
		
		
		
		

Views

Lithics

Projectile points

.1a	.1b	.1c
		
		
		
		

Views

Lithics

Ground stone

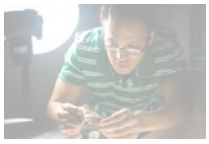
.1a	.1b
	
	
	
	

Views

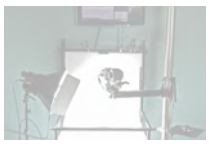
Metal

Miscellaneous

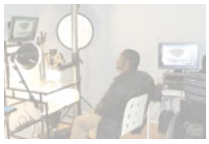
.1a	.1b
	
	
	
	



Steps 1–4 **Artifact Prep**



Steps 5–10 **Camera Setup**

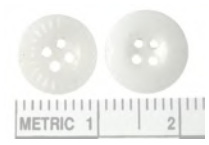


Steps 11–15 **Composition**

Steps 16–21 **Focus**

Steps 22–28 **Exposure**

Steps 29–30 **Saving Files**



Steps 31–32 **Views**

Steps 33–35 **Quality Control**

Quality Control

Summary

33. Ask the lab manager to conduct quality control.

34. Move the approved images into the folder with your name on it.

35. Delete the remaining, unapproved photos.

Never empty the recycle bin.

Quality Control

33

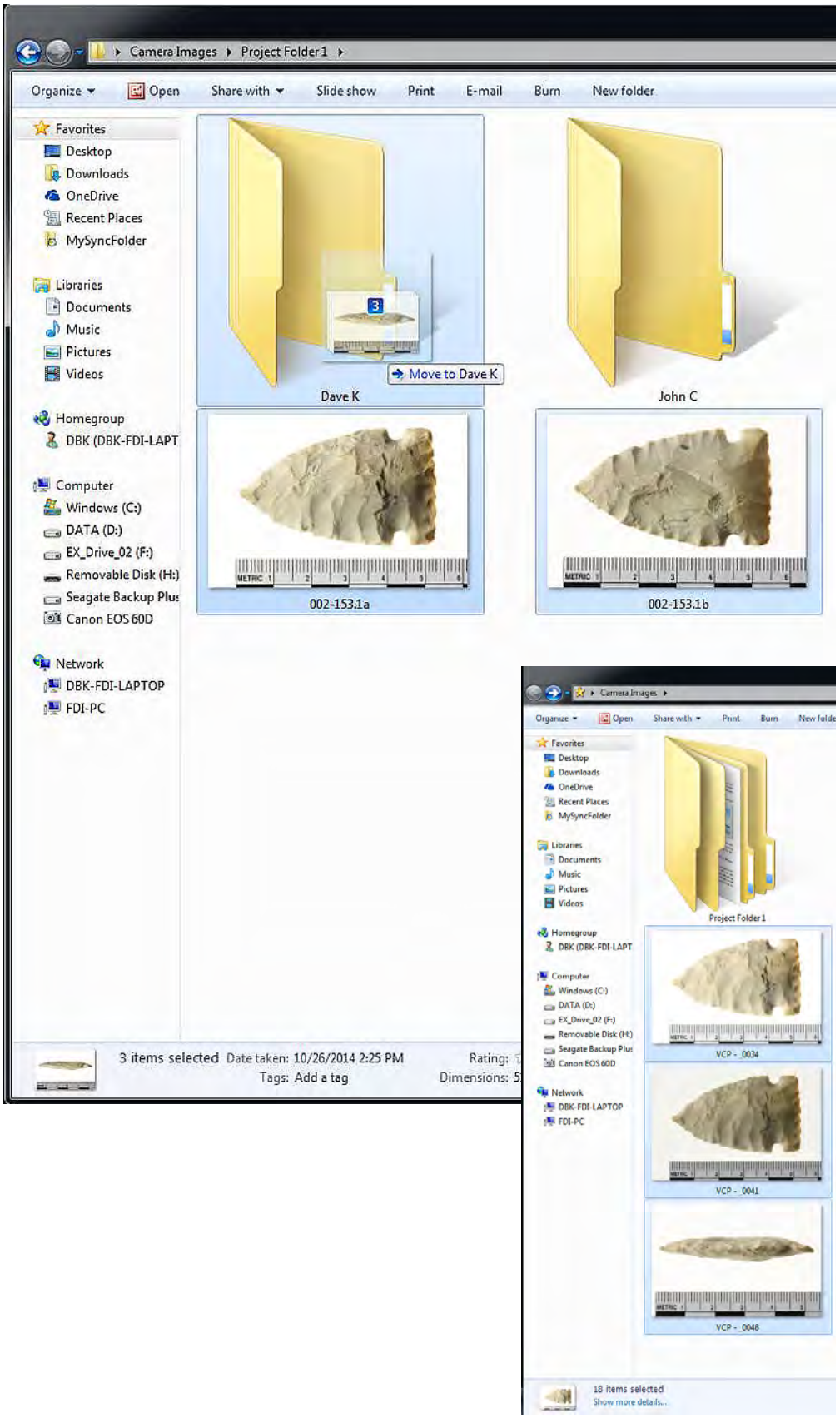
Once you've taken all the required views of a given artifact, ask the lab manager to conduct quality control.

Check the quality of your photos and correct any problems before calling a Lab Manager.

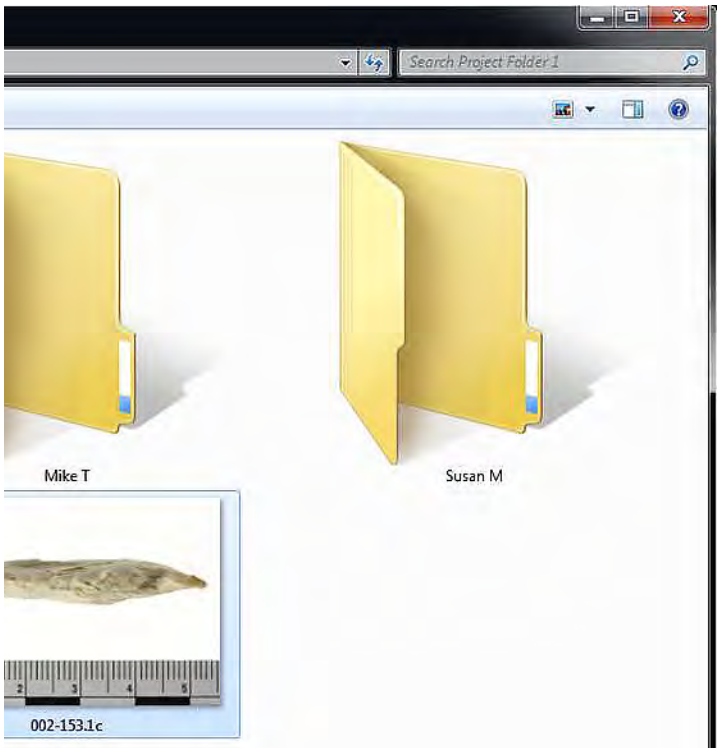
Quality Control

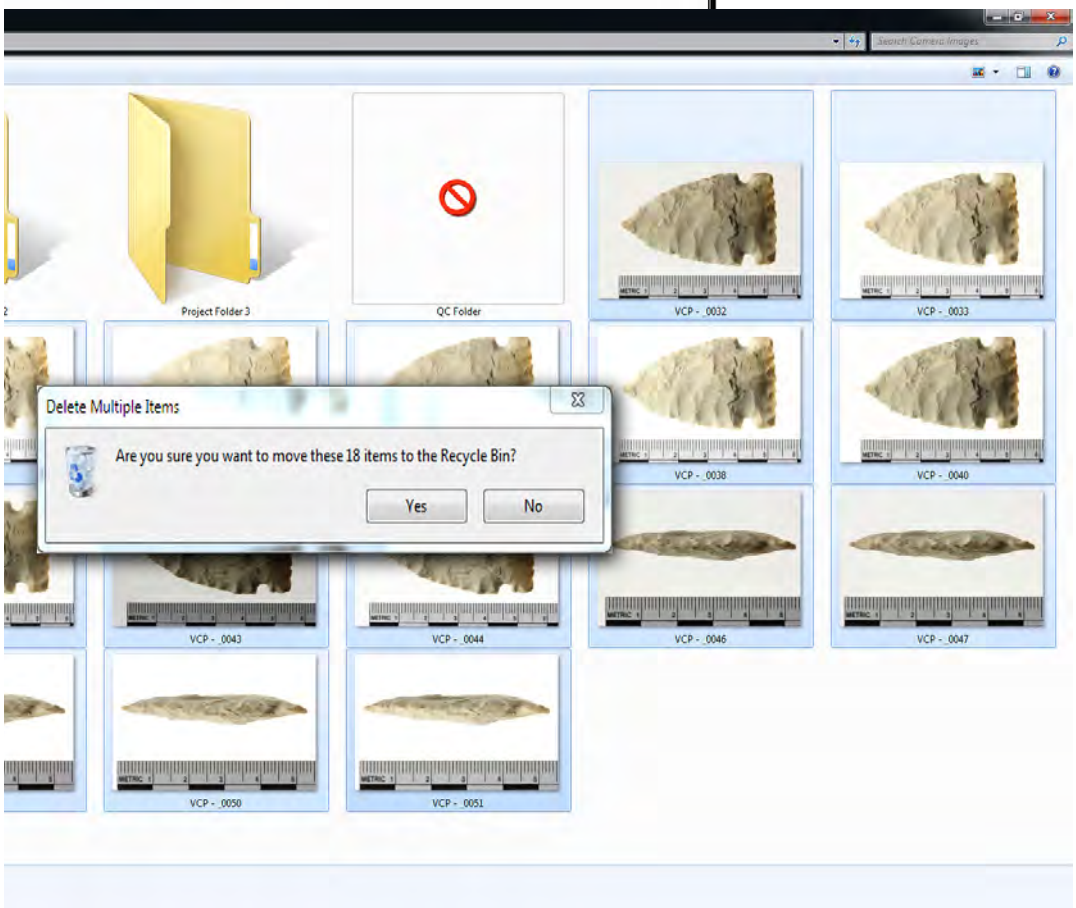
34

Inside the project folder, move the approved images into the folder with your name on it.



Quality Control





35

In the main Camera Images folder, delete the unapproved/ unused photos that remain.

NEVER EMPTY THE RECYCLE BIN. The images you delete from the Camera Images folder remain in the recycle bin. It is important that these images remain there.

Acknowledgments

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Authorship
John Cafiero (Statistical Research, Inc.) and David Knoerlein (Forensic Digital Imaging, Inc.) were the principal creators of this manual, with contributions from Maria Molina (Statistical Research, Inc.) and Caroline Steele (Stone Fountain Ink).

Quality Control

QC

Quality-control guidelines for VCP artifact photography.

DUST

Is there dust on the Plexiglas surface or on the lens? Use the lens brush to clean off any dust and dirt that shows up in the image.

COMPOSITION

Is the artifact too large or too small in the frame? Is there equal space around all sides of the artifact?

SCALE POSITION

Is the scale lined up with the left edge of the artifact? Is it level? Is it showing metric units? Does the image show too much of the scale?

FOCUS

Make sure the artifact and the ruler are in focus.

EXPOSURE

Is the image too dark or too light?

LIGHT

Does the lighting show the important features or texture of the artifact? Are there parts of the artifact that are “blown out” or in deep shadow?

ARTIFACT PHOTOGRAPHY

QUICK GUIDE

Artifact Prep

1. Put a clean piece of Plexiglas on your work surface.
2. Place the artifact on a pedestal smaller than the artifact itself.
3. Stand a piece of modeling clay on a piece of white paper near the artifact. Press a scale into the modeling clay so that it's straight and parallel to the artifact.
4. Place the Plexiglas, with the artifact and scale on it, on the light table under the camera lens.

Camera Setup

5. Make sure the left and bottom lamps are on.
6. Make sure the camera is on.
7. Double-click the EOS Utility icon on the desktop.
8. Double-click on "Camera settings/Remote shooting."
9. In the control panel, click on "Live View shoot."
10. Make sure the correct settings are in place (see page 12).

Composition

11. Click the auto-focus button (marked "ON" under the Quick Mode setting).
12. Compose the image by moving the camera stand arm up or down over the artifact.
13. Click the auto-focus button again after you've moved the camera stand arm to see the results.
14. Repeat this process (steps 12 and 13) until the artifact fills the frame.
15. Use the grid lines to align the left edge of the scale with the left edge of the artifact.

Focus

16. Using the mouse, position the white rectangle over the area you want to check for fine focus.
17. Click the magnifying glass to zoom in on that area.
18. In the Zoom View window, click on the left and/or right arrows to focus, then close the Zoom View window.
19. Click the shutter to capture the image.
20. Double-click the image to view it and check your results.
21. If necessary, repeat this process (steps 18–20) until the artifact is in sharp focus.

Exposure

22. Make sure the white rectangle includes as little of the white background as possible.
23. Double-click (or right-click) on the Exposure Value display.
24. Adjust exposure by moving the hash marks right or left. Right = lighter; left = darker.
25. Click the shutter to capture the image.
26. Double-click the image file in the Camera Images folder to check your results.
27. Repeat this process (steps 23–26) until you find the best exposure. Do not delete any of the images you've taken.
28. If necessary, move the side light until you find the best possible lighting. Take a photo each time you adjust the lighting.

Saving Files

29. Move the best version of each image into the project folder by dragging and dropping.
30. Rename the image file according to the artifact's ID number (see the table on page 35).

Views

31. Photograph all the necessary additional views for each artifact.
32. Rename all views with the proper artifact number and view extension, as in step 30.

Quality Control

33. Ask the lab manager to review your photos.
34. Inside the project folder, move the approved images into the folder with your name on it.
35. In the main Camera Images folder, delete the unapproved/unused photos that remain.