

Free Gray/Color Checker Card Inside!

Alan Hess

Nikon®
D3200™
Digital Field Guide



Nikon® D3200™ Digital Field Guide

Table of Contents

[Quick Tour](#)

[Getting Started](#)

[Setting the exposure mode](#)

[Focusing](#)

[Playback](#)

[Downloading Images](#)

[Chapter 1: Exploring the Nikon D3200](#)

[Key Camera Controls](#)

[The top of the camera](#)

[The back of the camera](#)

[The front of the camera](#)

[The left side of the camera](#)

[The right side of the camera](#)

[The bottom of the camera](#)

[The Viewfinder Display](#)

[The Information Display](#)

[The Guide Mode](#)

[The Shoot guide](#)

[The View/delete guide](#)

[The Set-up guide](#)

[Chapter 2: The Nikon D3200 Essentials](#)

[Exposure Modes](#)

[Scene Modes](#)

[Portrait](#)

[Landscape](#)

[Child](#)

[Sports](#)

[Close-up](#)

[Night Portrait](#)

[The Picture Control System](#)

[Working with Focus and AF area modes](#)

[How autofocus works for still images and video](#)

[Focus modes](#)

[AF area modes](#)

[Live View](#)

[Release Modes](#)

[Flash Modes](#)

[Setting the White Balance](#)

[Setting the ISO](#)

[Auto ISO](#)

[Noise reduction](#)

[File Types](#)

[RAW files](#)

[JPEGs](#)

[Chapter 3: Setting Up the Nikon D3200](#)

[The Playback Menu](#)

[Delete](#)

[Playback folder](#)

[Playback display options](#)

[Image review](#)

[Rotate tall](#)

[Slide show](#)

[DPOF print order](#)

[The Shooting Menu](#)

[Reset Shooting menu](#)

[Set Picture Control](#)

[Image quality](#)

[Image size](#)

[White balance](#)

[ISO sensitivity settings](#)

[Active D-Lighting](#)

[Auto distortion control](#)

[Color space](#)

[Noise reduction](#)

[AF-area modes](#)

[The built-in AF-assist Illuminator](#)

[Metering modes](#)

[Movie settings](#)

[Flash control for built-in flash](#)

[The Setup Menu](#)

[Reset setup options](#)

[Format memory card](#)

[Monitor brightness](#)

[Auto info display](#)

[Clean image sensor](#)

[Lock mirror up for cleaning](#)

[Video mode](#)

[HDMI](#)

[Flicker reduction](#)

[Time zone and date](#)

[Language](#)

[Image comment](#)

[Auto image rotation](#)

[Image Dust Off ref photo](#)

[Auto off timers](#)

[Self-timer](#)

[Remote on duration](#)

[Beep](#)

[Rangefinder](#)

[File number sequence](#)

[Buttons](#)

[Slot empty release](#)

[Print date](#)

[Storage folder](#)

[GPS](#)

[Firmware version](#)

[Chapter 4: Lenses and Accessories](#)

[Lens Basics](#)

[Nikon lens codes](#)

[Focal lengths](#)

[Aperture and depth of field](#)

[Vibration Reduction](#)

[Focusing motors](#)

[Lens Compatibility](#)

[The DX Crop Factor](#)

[Prime versus Zoom Lenses](#)

[Understanding prime lenses](#)

[Understanding zoom lenses](#)

[Picking the Right Lens](#)

[The Nikon Creative Lighting System](#)

[Available flashes](#)

[The Close-up Speedlight System](#)

[Using multiple flashes](#)

[Microphones](#)

[The built-in microphone](#)

[Stereo microphones](#)

[Shotgun microphones](#)

[Lavalier microphones](#)

[The WU-1a Wireless adapter](#)

[Chapter 5: All About Lighting](#)

[The Importance of Light](#)

[The Quality of Light](#)

[The Direction of Light](#)

[The Intensity of Light](#)

[Types of Light](#)

[Natural light](#)

[Continuous light](#)

[Flash basics](#)

[Measuring Light](#)

[Light meters](#)

[Metering modes](#)

[Chapter 6: Exposure and Composition](#)

[Exposure Basics](#)

[Shutter speed](#)

[Aperture](#)

[ISO](#)

[Equivalent exposures](#)

[Exposure compensation](#)

[Exposure for video](#)

[Composition](#)

[Rule of Thirds](#)

[Leading lines](#)

[Keeping it simple](#)

[Tips](#)

[Composition and video](#)

[Chapter 7: The Live View Mode and Video Basics](#)

[The Live View Mode](#)

[Focus modes and autofocus areas](#)

[Taking still photos](#)

[Video](#)

[Shooting video](#)

[Types of video](#)

[Frame rate](#)

[Shutter speed](#)

[Setting up to shoot video](#)

[Sound](#)

[Recording video](#)

[Playing back video](#)

[Chapter 8: Using the Nikon D3200](#)

[Abstract Photography](#)

[Inspiration](#)

[Practice](#)

[Tips](#)

[Action and Sports Photography](#)

[Inspiration](#)

[Practice](#)

[Tips](#)

[Concert Photography](#)

[Inspiration](#)

[Practice](#)

[Tips](#)

[Landscape and Nature Photography](#)

[Inspiration](#)

[Practice](#)

[Tips](#)

[Macro Photography](#)

[Inspiration](#)

[Practice](#)

[Tips](#)

[Night and Low-light Photography](#)

[Inspiration](#)

[Practice](#)

[Tips](#)

[Portrait Photography](#)

[Shooting indoors](#)

[Shooting outdoors](#)

[Photographing children](#)

[Choosing the right focal length](#)

[Inspiration](#)

[Practice](#)

[Tips](#)

[Travel Photography](#)

[Inspiration](#)

[Practice](#)

[Tips](#)

[Chapter 9: Viewing and Editing In-camera](#)

[Viewing Your Images](#)

[On the camera](#)

[Connecting to a standard TV](#)

[The HDMI HDTV connection](#)

[Viewing images on a smart device](#)

[Downloading Your Images](#)

[Editing in the Retouch Menu](#)

[D-Lighting](#)

[Red-Eye Reduction](#)

[Trim](#)

[Monochrome](#)

[Filter effects](#)

[Color balance](#)

[Image overlay](#)

[NEF processing](#)

[Resize](#)

[Quick retouch](#)

[Straighten](#)

[Distortion control](#)

[Fisheye](#)

[Color outline](#)

[Color sketch](#)

[Perspective control](#)

[Miniature effect](#)

[Selective color](#)

[Edit movie](#)

[Printing from the camera](#)

[Appendix A: Postproduction](#)

[Nikon software](#)

[iPhoto](#)

[Photoshop Elements](#)

[Nikon software](#)

[iMovie](#)

[Premiere Elements](#)

[Appendix B: Accessories](#)

[Tripod heads](#)

[Tripod legs](#)

[Materials](#)

[Monopods](#)

[Appendix C: How to Use the Gray Card and Color Checker](#)

[Glossary](#)

Nikon[®] D3200[™] Digital Field Guide

Alan Hess



WILEY

John Wiley & Sons, Inc.

Published by

John Wiley & Sons, Inc.

10475 Crosspoint Boulevard

Indianapolis, IN 46256

www.wiley.com

Copyright © 2012 by John Wiley & Sons, Inc., Indianapolis, Indiana

Published simultaneously in Canada

ISBN: 978-1-118-43822-0

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as permitted under Sections 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, (978) 750-8400, fax (978) 646-8600. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, 201-748-6011, fax 201-748-6008, or online at <http://www.wiley.com/go/permissions>.

Limit of Liability/Disclaimer of Warranty: The publisher and the author make no representations or warranties with respect to the accuracy or completeness of the contents of this work and specifically disclaim all warranties, including without limitation warranties of fitness for a particular purpose. No warranty may be created or extended by sales or promotional materials. The advice and strategies contained herein may not be suitable for every situation. This work is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional services. If professional assistance is required, the services of a competent professional person should be sought. Neither the publisher nor the author shall be liable for damages arising herefrom. The fact that an organization or Web site is referred to in this work as a citation and/or a potential source of further information does not mean that the author or the

publisher endorses the information the organization of Web site may provide or recommendations it may make. Further, readers should be aware that Internet Web sites listed in this work may have changed or disappeared between when this work was written and when it is read.

For general information on our other products and services or to obtain technical support, please contact our Customer Care Department within the U.S. at (877) 762-2974, outside the U.S. at (317) 572-3993 or fax (317) 572-4002.

Wiley publishes in a variety of print and electronic formats and by print-on-demand. Some material included with standard print versions of this book may not be included in e-books or in print-on-demand. If this book refers to media such as a CD or DVD that is not included in the version you purchased, you may download this material at <http://booksupport.wiley.com>. For more information about Wiley products, visit www.wiley.com.

Library of Congress Control Number: 2012942060

Trademarks: Wiley and the Wiley logo are trademarks or registered trademarks of John Wiley & Sons, Inc. and/or its affiliates. Nikon and D3200 are trademarks or registered trademarks of Nikon, Inc. All other trademarks are the property of their respective owners. John Wiley & Sons, Inc. Publishing, Inc. is not associated with any product or vendor mentioned in this book.

About the Author

Alan Hess is a San Diego-based commercial photographer specializing in concert and live-event photography. He is the author of ten books, including *Exposure Digital Field Guide*, *Composition Digital Field Guide*, *iPad Fully Loaded*, *All Access: Your Backstage Pass to Concert Photography* and *Night and Low-Light Photography Photo Workshop*, all of which are also available from Wiley.

Alan has also been part of the Photoshop World Instructor Dream Team since 2009, where he teaches about concert photography. You can find Alan at www.alanhessphotography.com, where he writes a semi-regular blog, or on Twitter at ShotLivePhoto.

Credits

Acquisitions Editor

Courtney Allen

Project Editor

Amanda Gambill

Technical Editor

George Maginnis

Senior Copy Editor

Kim Heusel

Editorial Director

Robyn Siesky

Business Manager

Amy Knies

Senior Marketing Manager

Sandy Smith

Vice President and Executive Group Publisher

Richard Swadley

Vice President and Executive Publisher

Barry Pruett

Senior Project Coordinator

Kristie Rees

Graphics and Production Specialists

Andrea Hornberger

Christin Swinford

Quality Control Technician

John Greenough

Proofreading

Susan Hobbs

Indexing

Potomac Indexing, LLC

Acknowledgments

I must thank my family and friends for putting up with me during the crazy writing schedule, and for always letting me point a camera at them, usually at an inconvenient time. Your patience is greatly appreciated.

Thank you to everyone at Wiley for your hard work and dedication to this project. Writing a book is more of a team effort than many people realize, and I have been lucky enough to have a great team: Courtney, Amanda, George, and everyone at Wiley, I could not do this without you.

Thanks to Rodney, Kasey, and Kaitlin for being such great subjects.

All of the dogs photographed in this book were rescued from animal shelters, and some of them are still looking for their forever homes. Thanks to Boxers N Birds Animal Rescue for all that it does.

To my wife, who supports my crazy writing schedule, and doesn't mind when I turn the living room or kitchen into a makeshift studio to photograph a candle or two; I thank you from the bottom of my heart. I could not do this without your love and encouragement.

Introduction

The Nikon D3200 is amazing. It's a camera designed for the photographer who is just starting out with a digital single-lens reflex camera (dSLR). But Nikon has packed this camera with the latest, greatest technology. It packs a huge new, Nikon-designed 24.2 megapixel sensor that shoots both great stills, and full HD video into a compact camera body.

The Nikon D3200 is a major update to the D3100 with a brand-new image-processing engine, the EXPEED 3. This is the same image-processing engine that comes in the Nikon D4, the top-end Nikon professional camera. This processing engine creates photos with great color, and produces low-noise images at high resolutions. The D3200 can photograph using ISO settings ranging from 100 to 6400, and can be pushed to Hi-1 (ISO 12800 equivalent), which allows great images to be taken in low light without a flash.

The purpose of this *Digital Field Guide* is to help you get the most out of this camera. It starts with a Quick Tour, which is designed to get you out and about capturing images without too much reading. Chapter 1 covers all of the external controls on the D3200 (and there are quite few of them). Many of the buttons and dials have different functions depending on which mode the camera is in. Chapter 1 also covers what is displayed when you look through the viewfinder, the information display, and the Guide mode. Chapter 2 covers the exposure, scene, and focus modes, as well as other important settings on the D3200, including the ISO and white balance settings.

The camera has a full menu system that allows you to set everything on it. Chapter 3 covers the Playback, Shooting, Custom Setting, and Setup menus. This is a great chapter to refer to when setting up your camera for the first time, or when you want to change any of the settings.

The Nikon D3200 is part of the whole Nikon system, and Chapter 4 covers lenses, flashes, microphones and the new wireless adapter. Photography is all about capturing light, and no *Digital Field Guide* would be complete without a discussion about it. The direction of light, its quality, and how to measure it in a scene are all covered in Chapter 5. The basics of exposure (including aperture, shutter speed, and ISO settings) and composition (including Rule of Thirds and Leading lines) are covered in Chapter 6.

One of the most exciting advances in photography is the ability to shoot full HD video. Chapter 7 covers the Live View function of the D3200 and, not only how to shoot still images with it, but also the very cool video-recording options. The different focus modes available in Live View are also covered.

Chapter 8 helps you use your D3200 in a variety of photo situations, including when taking abstract images, action and sports photography, and much more. Each situation is explored, and most include sample photos, along with the shooting data.

The Nikon D3200 has an impressive Retouch menu and can be connected to a variety of output devices. Chapter 9 covers viewing your images on the camera or a television, as well as the

retouching capabilities.

This book also has three appendices. The first covers postproduction, including how to use some of the most popular photo-editing software packages and your choices for video editing. The second appendix covers the accessories available for the Nikon D3200, including remote releases, video accessories, tripods, and more. The print version of this book comes with a gray card and color checker, and Appendix C covers how to use these correctly to get the best color and exposure.

As the name implies, this book is designed to be taken with you when you are out in the field photographing. It is meant to be marked up and highlighted—and go ahead and dog ear a page or two. It fits in your camera bag, so you can pull it out to check a setting, or just to review a subject

Quick Tour

If you get as excited as I do when getting a new camera, then this is the section for you. The Quick Tour is designed to get you and your new camera out and photographing quickly by giving you just the basics. If you've already used a dSLR, then just consider this a quick review. If this is your first camera with interchangeable lenses, then consider this section an overview so you can get started right away (assuming you have already unpacked the camera and read the camera manual). With the freshly charged battery inserted, a lens attached, and the memory card formatted, just turn the page and get ready to start taking great photos with your new Nikon D3200.



With the Nikon D3200, you can start capturing great images almost instantly.

Getting Started

The Nikon D3200 is an entry-level dSLR. So, while it is really easy for a beginner to pick up and get great shots, it has enough features and controls to keep any photographer satisfied. Once the basic setup is complete, turn the camera on by rotating the On/Off switch to the right. Now, it's time to set the exposure mode, focus on your subject, and get shooting.

NOTE The camera does not work without a memory card. There is no built-in memory as there is on some point-and-shoot cameras.

Setting the exposure mode

When starting out, the first thing to do is to set the exposure mode to Automatic (📷^{AUTO}) by using the Mode dial on the top right of the camera. Rotate the dial until the word Auto is lined up with the white marker, as shown in Figure QT.2. In this mode, the camera uses the built-in light meter to read the light in the scene, and sets the shutter speed, aperture, and ISO. The camera even raises the built-in flash automatically if it believes that more light is needed to create a proper exposure. This mode turns all of the controls over to the camera, essentially turning it into a point-and-shoot.



QT.1 Using Auto mode and the kit lens allowed me to focus more on the flower than on the camera controls. Exposure: f/5.6, 1/125 second, ISO 200.



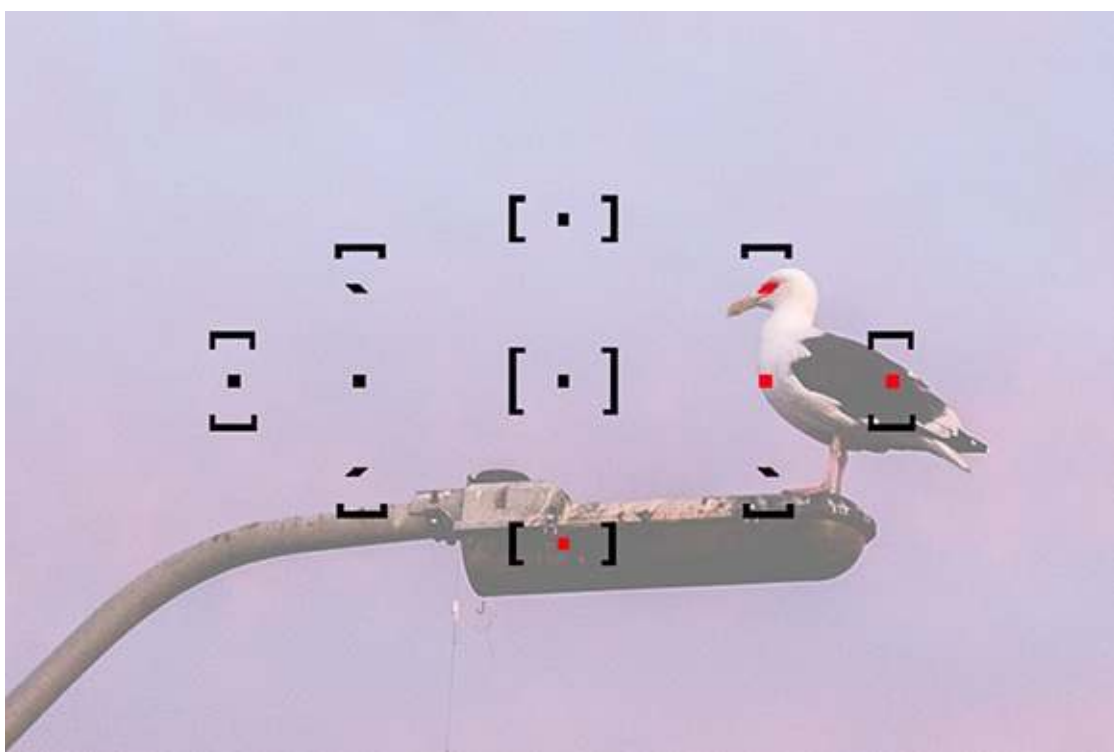
QT.2 The Mode dial showing the camera set to the Auto mode.

CROSS REF For more information on exposure modes, shutter speed, aperture, and ISO, see Chapter 2.

If you want to take a photo without using the flash, then turn the Mode dial to Auto flash off mode (📷). In this exposure mode, the camera still has full control over the exposure settings, but it does not use the flash, even in low light. When the scene is dark, the camera uses slower shutter speeds, wider apertures, and higher ISO settings to get a proper exposure. However, when shutter speeds drop too low to freeze the action, you end up with blurry images. I recommend using Automatic mode (📷) when you start out, unless using a flash will disturb your subject or you're in a location where flash photography is not allowed.

Focusing




With your new Nikon D3200 set to Automatic mode (📷), all you have to do is focus. Raise the camera to your eye and look through the viewfinder. Press the shutter-release button halfway to activate the autofocus. Once the camera achieves focus, a red bracket in the viewfinder briefly lights up. This is the autofocus point that the camera is currently using and the spot on which the camera attempts to focus. There is also an audible beep when focus is achieved, and the in-focus display is shown in the bottom-left corner of the viewfinder. If the camera is not focusing, check the lens and make sure that the A/M (Autofocus/Manual) button is set to A. Once the camera locks the focus on the subject, press the shutter-release button all the way to take the photo.






QT.3 The camera has 11 focus points that can be seen through the viewfinder. Here, those in red are locked onto the subject.

NOTE The camera focuses on the subjects closest to it when it is set to Automatic mode (AUTO .

Playback

After you have taken a few photos, you can review them on the camera using the large, 3-inch LCD screen on the back of the camera. The camera's default setting is to display each image for a few seconds right after it is taken. When you want to see the images again, just press the Playback button () located at the top-left corner of the D3200's back, and the most recent image that you took is displayed on the screen. You can scroll through all of the images on the camera's memory card by using the multi-selector on the back of the camera. Press the multi-selector right () to scroll through the images in the order in which they were taken, or you can press the multi-selector left () to scroll through the images in the reverse order. The camera displays the image along with the name, date, time, and resolution.

As you review your images, if you want to delete any of the photos, you can simply press the Delete button () at the lower right of the camera's back. However, unless an image is completely out of focus or just really bad, it is best to wait and delete images after you see them on a much bigger screen (like your computer). If you are positive an image is not a keeper, while it is on the screen, press the Delete button (). When the camera asks for confirmation, press the Delete button () again to permanently delete the image.



QT.4 The back of the camera showing the last image taken with the photo data on the bottom.

The following options are also available when viewing your photos on the back of the camera:

► **Playback zoom in** (🔍). Press the Playback zoom in button (🔍) to zoom in to your image, and check the sharpness and detail. Every time you press the button, you zoom further into the photo. You can then move around inside the image using the multi-selector. This option is useful for making sure that you get the most important part of the photograph in focus.

► **Playback zoom out/Thumbnail button** (🖼️). When you press the Playback zoom out/Thumbnail button (🖼️), you can view the images stored on the memory card with 4, 9, or 72 images displayed on the screen. Each time you press the button, it shows you more thumbnails. This allows you to quickly scroll through the images to find the one that you want to check. When you are in the thumbnail view you can navigate using the multi-selector to select the image you want to see, and then press the OK button (OK) to have the selected image fill the screen. In the thumbnail view, the selected image has a yellow border. You can also press the Playback zoom in button (🔍) to take you out of the thumbnail view.

► **AE-L/AF-L (AE-L/AF-L)/Protect** (🔒) button. If there are images that you want to make sure aren't deleted inadvertently, you can use the AE-L/AF-L (AE-L/AF-L)/Protect (🔒) button to prevent an image from being deleted. Press the button once when the image you want to protect is on the screen so it cannot be deleted when the Delete button (🗑️) is pressed. A small protect icon (🔒) appears on the top left of the image on the screen.

CAUTION All images, including protected images, are deleted when formatting the memory card.

Downloading Images

Once the memory card is full of images, or you want to edit your images on a computer, you need to connect the camera to a computer and download the files. The Nikon D3200 has some image editing capabilities built in to it, but if you do all of your editing in the camera, at some point you will still run out of space on the memory card and need to download the photos to free up space. There are two ways to download photos from your camera to the computer: Use the supplied USB cable and connect the camera directly to the computer, or use a card reader connected to the computer.

CROSS REF The Nikon D3200 built-in image-editing capabilities are covered in Chapter 9.

To use the camera and the supplied USB cable to download your photos, follow these steps:

- 1. Turn off the camera.** Make sure that the camera is turned off before connecting it to a computer directly to avoid damaging the camera or computer.
- 2. Open the rubber cover on the left side of the camera to expose the USB port.** The USB port is the second one from the top, just under the microphone jack.
- 3. Connect the camera to the computer.** Plug the supplied USB cable into an open USB port on your computer and the USB port on the camera, as shown in Figure QT.5



QT.5 The supplied USB cord connecting the Nikon D3200 to a laptop computer.

- 4. Turn the camera on.** Once the computer and camera are both turned on, the computer should recognize the camera as a storage device and allow you to copy the image files from the camera to the computer. You can also use applications such as iPhoto, Nikon Transfer, Photo Mechanic or Adobe Bridge to transfer the files.
- 5. Disconnect the camera.** When you finish with the image transfer, disconnect your camera from the computer the same way you would disconnect any other external device.

To download the photos using a dedicated memory card reader, follow these steps:

1. Turn off the camera.

2. Eject the memory card. Make sure the memory card access lamp (the little green light next to the memory card access door) isn't blinking before removing the memory card. Open the memory card door and press down on the memory card to eject it.

NOTE Using a card reader saves battery power because the camera does not have to be turned on.

3. Insert the memory card into the card reader attached to your computer. The computer then recognizes the memory card as a storage device and you can now transfer the files to the computer. You can also use programs such as iPhoto, Nikon Transfer, Photo Mechanics, or Adobe Bridge to transfer the files from the memory card to the computer.

4. When you finish transferring the images, eject the card from the computer and put it back in the camera.



QT.6 An SD memory card inserted into a Hoodman Raw Steel card reader, and connected to a laptop computer.

TIP Once your download is complete and your photos are safely transferred to the computer, format the memory card in the camera so it is always ready to save more photos.

- [**The Bankers' New Clothes: What's Wrong with Banking and What to Do about It here**](#)
- [read online Mayor 1%: Rahm Emanuel and the Rise of Chicago's 99%](#)
- [click *The Early Clarinet: A Practical Guide \(Cambridge Handbooks to the Historical Performance of Music\)* pdf, azw \(kindle\)](#)
- [read Harvey Penick's Little Red Book. Lessons And Teachings From A Lifetime In Golf \(20th Anniversary Edition\)](#)
- [download online *Shakespeare's Sonnets \(Blackwell Introductions to Literature\)* here](#)

- <http://aseasonedman.com/ebooks/Kansas-Charley--The-Boy-Murderer.pdf>
- <http://academialanguagebar.com/?ebooks/Fractal-Time--The-Secret-of-2012-and-a-New-World-Age.pdf>
- <http://patrickvincitore.com/?ebooks/The-Early-Clarinet--A-Practical-Guide--Cambridge-Handbooks-to-the-Historical-Performance-of-Music-.pdf>
- <http://weddingcellist.com/lib/The-Complete-Idiot-s-Guide-to-the-Perfect-Resume--5th-Edition-.pdf>
- <http://flog.co.id/library/Shakespeare-s-Sonnets--Blackwell-Introductions-to-Literature-.pdf>