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KEY=RENDERING - JAMARI TYRESE

DIGITAL LIGHTING AND RENDERING

New Riders *Learn the fine art and craft of digital lighting and rendering from an experienced pro whose lighting work you've seen in blockbuster films such as Monsters University, Toy Story 3, Up, WALL-E, Ratatouille, and The Incredibles. Jeremy Birn draws on his wealth of industry and teaching experience to provide a thoroughly updated edition of what has become the standard guide to digital lighting and rendering. Using beautiful, full-color examples; a friendly, clear teaching style; and a slew of case studies and tutorials, Jeremy demonstrates how to create strategic lighting for just about any project using any 3D application. By explaining not just how to use various lighting techniques but why, this guide provides the grounding graphics pros need to master Hollywood lighting techniques. • Learn how to pinpoint problems with your lighting and solve them to produce professional results. • Break scenes into passes and layers, and convincingly composite 3D models into real-world environments. • Adopt a linear workflow for more convincing lighting, global illumination, and compositing. • Apply advanced rendering techniques using subsurface scattering, physically based lighting, caustics, and high dynamic range images. • Build a bigger bag of tricks by learning "old-school" approaches such as tweaking shadow maps, faking GI with occlusion passes, and other cheats and tricks that save render time. • Develop realistic materials and shaders, and design and assign detailed texture maps to your models. • Mimic photographic exposure and cinematography techniques to simulate real-life f-stops, lens breathing, bokeh effects, and Kelvin color temperatures for more photorealistic renderings. • Learn to light characters and environments in different situations: day or night; natural or artificial lights; indoors or outdoors; and in clear air, thick atmosphere, or under water. • Understand production pipelines at visual effects and animation studios, and prepare for collaborative work on large lighting teams • Get the latest insights into industry trends, and how to develop your lighting reel and get a job in an increasingly competitive industry. • Download many of the 3D scenes used in this book from the author's website to try texturing, lighting, and compositing on your own*

ADVANCED MAYA TEXTURING AND LIGHTING

John Wiley & Sons *Level up your skills with powerful texturing and lightingtechniques Advanced Maya Texturing and Lighting, Third Edition leadsyou through the latest advanced techniques for adding realisticdetail to your models. This new edition is up-to-date with thelatest Maya texturing, lighting, and rendering features, includingan exploration of the Node Editor, new Maya utility nodes andexpanded coverage of mental ray shaders, and render settings. Theproven tutorials are culled from real-world experience and refinedto give you the ultimate in practical skills. You'll learn workflowtips and tricks, the construction of custom shading networks, andthe application of time-saving tools that bring your project fromconcept to reality. The companion website features severalgigabytes of Maya scene files, texture bitmaps, and QuickTimemovies that support the exercises in the book, giving youeverything you need to advance your animation skillset. This book helps you take your rendering skills to the next levelwith the advanced tools and techniques that take animation fromgood to great. Learn the theory behind expert lighting design Understand shadows, shading components, and texturemapping Work with node networks, raytracing, and globalillumination Try new approaches to rendering using Maya Software and mentalray If you're ready to take a big step forward and fine-tune yourstyle, Advanced Maya Texturing and Lighting, Third Editionis the practical, hands-on guide you need.*

DIGITAL LIGHTING & RENDERING

(DIGITAL) LIGHTING & RENDERING

ILLUMINATED PIXELS

THE WHY, WHAT, AND HOW OF DIGITAL LIGHTING

Course Technology Ptr *Annotation 'Illuminated Pixels' teaches digital artists how to apply the foundational principles of lighting to digital lighting and design. The book explores the why, what, and how of lighting, integrating classic concepts with modern techniques, explaining the importance and the application of them.*

BLENDER CYCLES: LIGHTING AND RENDERING COOKBOOK

Packt Publishing Ltd *An in-depth guide full of step-by-step recipes to explore the concepts behind the usage of Cycles. Packed with illustrations, and lots of tips and tricks; the easy-to-understand nature of the book will help the reader understand even the most complex concepts with ease.If you are a digital artist who already knows your way around Blender, and you want to learn about the new Cycles' rendering engine, this is the book for you. Even experts will be able to pick up new tips and tricks to make the most of the rendering capabilities of Cycles.*

ESSENTIAL CG LIGHTING TECHNIQUES WITH 3DS MAX

Taylor & Francis *Certified by Autodesk, Darren Brooker's new edition teaches the production techniques behind real-world work. The tutorials take you from the fundamentals of lighting, right through to advanced techniques.*

DIGITAL LIGHTING & RENDERING, SECOND EDITION

Crafting a perfect rendering in 3D software means nailing all the details. And no matter what software you use, your success in creating realistic-looking illumination, shadows and textures depends on your professional lighting and rendering techniques. In this lavishly illustrated new edition, Pixar's Jeremy Birn shows you how to: Master Hollywood lighting techniques to produce professional results in any 3D application Convincingly composite 3D models into real-world environments Apply advanced rendering techniques using subsurface scattering, global illumination, caustics, occlusion, and high dynamic range images Design realistic materials and paint detailed texture maps Mimic real-life camera properties such as f-stops, exposure times, depth-of-field, and natural color temperatures for photorealistic renderings Render in multiple passes for greater efficiency and creative control Understand production pipelines at visual effects and animation studios Develop your lighting reel to get a job in the industry.

LIGHTING FOR ANIMATION

THE ART OF VISUAL STORYTELLING

CRC Press *Lighting for Animation is designed with one goal in mind - to make you a better artist. Over the course of the book, Jasmine Katatikarn and Michael Tanzillo (Senior Lighting TDs, Blue Sky Studios) will train your eye to analyze your work more critically, and teach you approaches and techniques to improve your craft. Focusing on the main philosophies and core concepts utilized by industry professionals, this book builds the foundation for a successful career as a lighting artist in visual effects and computer animation. Inside you'll find in-depth instruction on: • Creating mood and storytelling through lighting • Using light to create visual shaping • Directing the viewer's eye with light and color • Gathering and utilizing reference images • Successfully lighting and rendering workflows • Render layers and how they can be used most effectively • Specific lighting scenarios, including character lighting, environment lighting, and lighting an animated sequence • Material properties and their work with lighting • Compositing techniques essential for a lighter • A guide on how to start your career and achieve success as a lighting artist This book is not designed to teach software packages—there are websites, instructional manuals, online demos, and traditional courses available to teach you how to operate specific computer programs. That type of training will teach you how to create an image; this book will teach you the technical skills you need to make that image beautiful. Key Features Stunning examples from a variety of films serve to inspire and inform your creative choices. Unique approach focuses on using lighting as a storytelling tool, rather than just telling you which buttons to press. Comprehensive companion website contains lighting exercises, assets, challenges, and further resources to help you expand your skillset.*

DIGITAL MODELING

New Riders *Professional modeling is the foundation of every aspect of the 3D production pipeline and is essential to the success of any 3D computer graphics project. [digital] Modeling is unlike any other modeling book you've seen—it gets to the core of what it takes to create efficient production-ready models and demystifies the process of producing realistic and jaw-dropping graphics. Taking a software-neutral approach, it teaches you the essential skills and concepts that you can apply to modeling in any industry 3D software, such as 3ds Max, LightWave 3D, Maya, Modo, Silo, XSI, ZBrush and other leading programs. Modelers, animators, texture artists, and technical directors can all benefit from the valuable information covered in this jam-packed guide containing years of industry knowledge. Simply put, if you work in 3D, you must have this book. In this inspiring and informative guide to modeling, industry veteran William Vaughan teaches you how to: Master modeling techniques to produce professional results in any 3D application Use the tools of a professional digital modeler Control your models polygon-count as well as polygon-flow Create both organic and hard surface models Understand a modeler's role in a production environment Gain the knowledge to land a job in the industry as a digital modeler Model using specific tools such as LightWave and 3ds Max in over 6 hours of video training in the accompanying downloadable lesson files (see below for details) And much more! All of Peachpit's eBooks contain the same content as the print edition. You will find a link in the last few pages of your eBook that directs you to the media files. Helpful tips: If you are able to search the book, search for "Where are the lesson files?" Go to the very last page of the book and scroll backwards. You will need a web-enabled device or computer in order to access the media files that accompany this ebook. Entering the URL supplied into a computer with web access will allow you to get to the files. Depending on your device, it is possible that your display settings will cut off part of the URL. To make sure this is not the case, try reducing your font size and turning your device to a landscape view. This should cause the full URL to appear.*

ESSENTIAL CG LIGHTING TECHNIQUES

CRC Press *Illustrated in color throughout, this comprehensive text not only looks at the technical and theoretical aspects of becoming skilled at using the light tools available in 3D software, but also provides invaluable tutorials so you can explore these techniques in-depth. Lighting is a core CG skill that makes or breaks a 3D environment. Providing all you need to master this vital aspect of CG, this comprehensive guide looks at the key concepts that can be applied in any 3D package. Every ounce of theory is backed up with practical tutorials, using the free demo version of 3ds max supplied on the accompanying CD-ROM. The tutorials deal with the fundamentals of lighting and as such are easily transferable to any other major 3D software package. The free CD also includes all the files needed to complete the tutorials step-by-step, as well as demo versions of Dark Tree Textures, Deep Paint 3D and Cinelook, acclaimed applications that every lighting artist should be aware of. If you are new to CG lighting, are thinking of specializing in this area, or want to brush up on your existing lighting skills, then this book will provide you with a one-stop master class so you too can achieve professional looking results.*

DRAWING AND RENDERING FOR THEATRE

A PRACTICAL COURSE FOR SCENIC, COSTUME, AND LIGHTING DESIGNERS

Taylor & Francis *Drawing and Rendering for Theatre, A Practical Course for Scenic, Costume, and Lighting Designers is designed for those of you who are theatrical designers and want to improve your drawing and rendering skills. This gorgeous full-color book includes many examples of student drawings, analyzed and critiqued for areas that need improvement. It also includes numerous examples of design renderings by professional theatrical designers. In addition to the general sections on drawing and painting, it includes separate chapters on costume, scenic, and lighting rendering that include information specific to these design areas.*

RENDERING WITH RADIANCE

THE ART AND SCIENCE OF LIGHTING VISUALIZATION

CreateSpace

MAXON CINEMA 4D R20: A DETAILED GUIDE TO XPRESSO

Padexi Academy *XPresso is a node based system in Cinema 4D that is used to create automated object interactions. You can create these interactions by drawing wires from one node to another. From rotating fan blades to rigged objects, from propellers to the bouncing ball, from clock mechanism to organic movement of a jellyfish, XPresso allows you to create animations with ease. The MAXON Cinema 4D R20: A Detailed Guide to XPresso book introduces students to the XPresso module of the CINEMA 4D which is a node-based visual scripting language. This book covers XPresso Editor and different nodes of the XPresso and MoGraph classes and takes you step-by-step through the whole process of building node networks in XPresso Editor. Numerous examples and hands-on exercises are used to show the functioning of the nodes. Moving ahead, this book broadens your XPresso knowledge by taking you step-by-step through the process of creating four Cinema 4D lighting presets. You can use these presets to quickly and easily illuminate the scenes and produce cool looking renders. Practicing is one of the best ways to improve skills. This book contains practice activities which you are highly encouraged to complete and gain confidence for real-world projects. By completing these activities, you will be able to master the powerful capabilities Cinema 4D. By the time you're done, you'll be ready to create hard-surface models in Cinema 4D. If you buy this book, you'll also get access to all preset files, Cinema 4D files, texture files, and any other resource used in the book. You are free to use these resources in your own projects personal or commercial. These working files allow you to follow along with the author throughout the lessons. This book shares tips, tricks, notes, and cautions throughout, that will help you become a better 3D artist and you will be able to speed up your workflow. This book is aimed to be a solid teaching resource for learning XPresso module with Cinema 4D R20. It avoids any jargon and explains concepts and techniques in an easy-to-understand manner. The first page of the every unit summarizes the topics that will be covered in the unit. Hands-on exercises in this book instruct users how things can be done in XPresso step-by-step. As students move from one exercise to another, they will be gaining robust knowledge about the XPresso module of Cinema 4D. What are the key features of the book? Explains XPresso Editor and node-based approach. Covers nodes of the XPresso and MoGraph classes. Step-by-step instructions to create four lighting presets from scratch. Covers nodes and features in detail. Features 30 examples showing functioning of the nodes. Features more than 18 hands-on exercises – complete with before and after files. Contains 10 practice activities to test the knowledge gained. Additional guidance is provided in the form of tips, notes, and cautions. Important terms are in bold face so that you never miss them. The content under "What just happened?" heading explains the working of the instructions. The content under "What next?" heading tells you about the procedure you will follow after completing a step(s). Includes an ePub file that contains the color images of the screenshots/illustrations used in the textbook. These color images will help you in the learning process. This ePub file is included with the resources. Tech support from the author. Access to each exercise's initial and final states along with the resources used in hands-on exercises. Quiz to assess the knowledge.*

[DIGITAL] VISUAL EFFECTS AND COMPOSITING

New Riders *In this latest book in the critically-acclaimed [digital] series from New Riders you'll learn all of the techniques and skills that will take you from beginner to visual effects (VFX) professional in just one book. Seasoned visual effects producer Jon Gress has refined the teaching of the skills and techniques presented in this book for over a decade to distill them down to the most effective methodology, delivered in a way that's both fun and easy to understand while being state-of-the-art for industry professionals. You'll start with a solid understanding of the basics of visual effects and compositing, the fundamentals of bluescreen and greenscreen keying, 3D texturing, cloning, wire & rig removal, rotoscoping, 2D and 3D motion tracking, and matchmoving. And then experiment with a wide range of 2D, 2.5D & 3D visual effects, including 3D CGI, crowd replication, face replacements, faking shadows, reflections and Z depth, atmospheric, smoke, cloud & heat FX, sky replacements, day-for-night and digital 3D HUD FX. Building on this strong foundation of compositing and visual effects, you'll be prepared for the advanced section of the book which teach skills, such as 2D, 2.5D & 3D digital matte painting and projections, film colorization, particle systems, fluid and rigid body dynamics, full digital environments, digital destruction, advanced lighting and rendering techniques, stereoscopic 3D, 2D to 3D conversions, and expert 3D and Photoshop extraction and modeling techniques that can only be described as magic! Throughout the lessons, you'll glean insider advice on cutting edge methods that even experienced professionals will find amazing. You'll learn everything you need to know to begin working in the world of visual effects as an industry professional. • All the info you need to go from beginner to professional in one book • Easily accessible teaching style from an instructor who has helped launch the careers of some of the best-known Hollywood visual effects specialists • Includes companion graphics files and videos to follow along with the lessons*

DIGITAL TEXTURING & PAINTING

New Riders Pub *Accompanying CD includes exercise files and products to assist with working with the book.*

RENDERING WITH MENTAL RAY AND 3DS MAX

Taylor & Francis *Create stunning renders of your 3ds Max models in mental ray with this concise guide. Learn all of the essential concepts such as indirect illumination, materials, render options, shaders, and lighting. Rendering with mental ray and 3ds Max, Second Edition is now revised to cover Autodesk Revit and special effects. The companion website includes all of the necessary project files from inside the book.*

V-RAY REALITY (DIGITAL LIGHTING & RENDERING⬚ ⬚⬚)

KEYSHOT 3D RENDERING

Packt Publishing Ltd *The book includes a series of step-by-step illustrated tutorials supported by a detailed explanation for each aspect of the 3D rendering procedure. Some of the procedures or steps may be omitted if they have been previously explained in an exercise or chapter. "Keyshot 3D Rendering" is ideal for beginners and professionals who are involved with product development, entertainment, and industrial design. It is recommended for readers who already have some level of experience with 3D modelling, texturing, and rendering applications.*

LIGHTING FOR PRODUCT PHOTOGRAPHY

THE DIGITAL PHOTOGRAPHER'S STEP-BY-STEP GUIDE TO SCULPTING WITH LIGHT

Amherst Media *In the Internet age, shoppers often don't have the advantage of touching or feeling an item in order to make a logical buying decision regarding. The same is true on menus; we have to decide whether or not to order that fancy drink or dessert based on a photograph of it. This makes the job of photographers more important than ever--without the right photos, even the best product won't sell in today's marketplace! In this book, photographer Allison Earnest shows you how to design images to contain all the information about color, depth, shape, and texture that potential buyers will need to evaluate the product using their eyes alone--and how to entice viewers with scene setups and lighting that set the right mood or match the needs of a specific publication, website, or advertising campaign. Comprehensive text and detailed setup shots make it easy to follow along and master the principles of photographing any product beautifully!*

ZBRUSH CHARACTER CREATION

ADVANCED DIGITAL SCULPTING

John Wiley & Sons *A stunning, content-rich update to this top-selling ZBrush guide! This second edition of ZBrush Character Creation has been fully updated for ZBrush 4, the newest version of this fascinating and popular 3D sculpting software. ZBrush enables users to create detailed organic models using a brush-based toolset and tablet. The startling results look as though they've been painted with real brushes and oils, and ZBrush is increasingly popular for use in film, game, and broadcast pipelines. Author Scott Spencer is embedded in the ZBrush community and his movie credits include Harry Potter and The Order of the Phoenix and the upcoming The Hobbit. Learn Spencer's invaluable techniques for texturing, chiseling, posing, costuming, and more with his newest ZBrush guide. Explains ZBrush 4, the newest version of the revolutionary software tool for creating 3D organic models in a way that appears to be traditionally painted or sculpted Shows you how get the most out of ZBrush, from the fundamentals to new tools for texturing, chiseling, and costuming Offers plenty of insights and professional techniques for creating characters for films and games, drawing from the author's own experience on such films as Harry Potter and The Order of the Phoenix and The Hobbit Demonstrates the author's own techniques of using traditional sculpting and painting concepts and applying them to digital art for greater artistry Discover the beauty of ZBrush with this colorful, in-depth guide.*

RENDERING IN SKETCHUP

FROM MODELING TO PRESENTATION FOR ARCHITECTURE, LANDSCAPE ARCHITECTURE, AND INTERIOR DESIGN

John Wiley & Sons *The sure way for design professionals to learn SketchUp modeling and rendering techniques Rendering In SketchUp provides instructions for creating 3D photoreal graphics for SketchUp models using integrated rendering programs. The book serves as a beginner rendering manual and reference guide to further develop rendering skills. With an emphasis on step-by-step process, SketchUp users learn a universal approach to rendering varied SketchUp projects, including architecture, interiors, and site design models. The book focuses on tasks and principles at the core of photorealistic rendering, including: Rendering process: Learn a step-by-step process focused on workflow within SketchUp's familiar workspace. Universal method: Understand how the process can be used to work with a variety of different integrated rendering programs, including Shaderlight, SU Podium and Twilight Render**. These programs are easy to learn and function in SketchUp. > Textures and materials: Discover how to obtain, apply and edit texture images representing surfaces. Component details: Learn how to acquire and organize model details to allow for rich, expressive settings while maintaining computer and SketchUp performance. Exterior and simulated lighting: Learn to set exterior lighting with the SketchUp's Shadow menu or illuminate a scene with simulated lights, lamps, and bulbs. Render settings: Use specific settings for various rendering programs to quickly set texture character, image quality, and graphic output. Computer specifications: Find out how computers produce renders and the type of computer hardware required to streamline the process. Photoshop post-processing: Learn how to further refine rendered images in Photoshop. **Free online chapters: The book reviews specific settings for SketchUp and the rendering plug-in Shaderlight. Given the ever-changing nature of technology, free, online accompanying chapters detail settings for additional integrated rendering programs including SU Podium, Twilight Render, and more.*

LIGHT FOR VISUAL ARTISTS

UNDERSTANDING & USING LIGHT IN ART & DESIGN

Hachette UK *Light is as important as colour in creating the right effect, whether on a palette or on a computer. Whether you're an animator, painter, photographer or illustrator, you need to know how to harness light in your work to create the right effect. Light for Visual Artists is the first and only book that explores the way light can be used to create realistic and fantastical effects in a wide range of media. Illustrator Richard Yot, known for his work in film as a lighting artist and stylised 3D illustrations, takes you through the fundamental properties of natural and artificial light, shadows, the interaction of light on different types of surfaces, reflections, as well as transparency, translucency and the effects of light on colour. Richard also explores how to observe the effects of light to create realistic images, and the creative use of light in composition and design for creating moods or setting a scene. This second edition has been updated with revised photos and artwork, as well as 15 practical exercises and new online video material. Packed with diagrams and illustrations, as well as computer game and film stills, Light for Visual Artists is an invaluable resource for animators, digital illustrators, painters, photographers and artists working in any medium.*

PHYSICALLY BASED RENDERING

FROM THEORY TO IMPLEMENTATION

Morgan Kaufmann *This updated edition describes both the mathematical theory behind a modern photorealistic rendering system as well as its practical implementation. Through the ideas and software in this book, designers will learn to design and employ a full-featured rendering system for creating stunning imagery. Includes a companion site complete with source code for the rendering system described in the book, with support for Windows, OS X, and Linux.*

PRODUCTION PIPELINE FUNDAMENTALS FOR FILM AND GAMES

CRC Press *Every production is built on the backbone of the pipeline. While a functional and flexible pipeline can't assure a successful project, a weak pipeline can guarantee its demise. A solid pipeline produces a superior product in less time and with happier artists who can remain creative throughout the grueling production schedule. Walk through the foundational layers of the production pipeline, including IT infrastructure, software development practices and deployment policies, asset management, shot management, and rendering management. Production Pipeline Fundamentals for Film and Games will teach you how to direct limited resources to the right technological initiatives, getting the most for every dollar spent. Learn how to prepare for and manage all aspects of the pipeline with this entirely unique, one-of-a-kind guide. Expand your knowledge with real-world pipeline secrets handed to you by a stellar group of professionals from across the globe. Visit the companion website for even further resources on the pipeline.*

SHADING, LIGHTING, AND RENDERING TECHNIQUES WITH CINEMA 4D STUDIO R18

Createspace Independent Publishing Platform *This textbook offers a hands-on exercises based strategy and introduces digital artists to various rendering concepts in CINEMA 4D Studio R18. This brilliant guide takes you step-by-step through the whole process of shading, lighting, and rendering. From the very first pages, the users of the book will learn how to effectively use CINEMA 4D for creating great looking renders.*

ARCHITECTURAL RENDERING WITH 3DS MAX AND V-RAY

PHOTOREALISTIC VISUALIZATION

CRC Press *Create high-quality photorealistic renders of architectural visualizations using 3ds Max and Vray with the project-based tutorials in this book. Learn how to combine lighting and rendering options to end-up with the most realistic final renders possible at a professional level. The tutorials in this book are filled with beautiful full-color images and they teach you how to light both interiors and exteriors and daytime and nighttime scenes. Learn how to save time without sacrificing the quality of your final renders with tips and tricks on rendering with Vray - the most accurate rendering application for 3ds Max. The companion CD includes all the project files that you need to recreate each of the projects presented within the book.*

DIGITAL CINEMATOGRAPHY & DIRECTING

New Riders *digital Cinematography and Directing is unlike any other cinematography or directing book you've seen. This book was written entirely for 3D animators. Based on real-world photographic and cinematic principles, it teaches you essential skills and concepts that you can apply to any industry 3D application, such as LightWave 3D, Softimage XSI, 3ds max, CINEMA 4D, Maya, and other leading programs. This book does not focus on using software but rather teaches you how to understand and use the camera within your 3D application. Master focal lengths, f-stops, and apertures within your 3D aplication. Learn how pre-production planning can guide and enhance your project by applying essential storyboarding techniques. Use light as not only an illumination source, but as a tool for cinematic storytelling. Learn how to direct your digital cast with proper staging techniques "Dan Ablan's years of innovating digital production techniques and his undeniable expertise at teaching CGI, FX, and Film, makes digitalCinematography and Directing a must-have!" -Dave Adams, Dreamworks.*

HOW TO RENDER

THE FUNDAMENTALS OF LIGHT, SHADOW AND REFLECTIVITY

Explains how the human brain interprets the visual world around us, as well as the subject of visually communicating the form of an object in easy to understand lessons through the use of drawings, photography, and more.

DIGITAL MODELING OF MATERIAL APPEARANCE

Elsevier *Computer graphics systems are capable of generating stunningly realistic images of objects that have never physically existed. In order for computers to create these accurately detailed images, digital models of appearance must include robust data to give viewers a credible visual impression of the depicted materials. In particular, digital models demonstrating the nuances of how materials interact with light are essential to this capability. Digital Modeling of Material Appearance is the first comprehensive work on the digital modeling of material appearance: it explains how models from physics and engineering are combined with keen observation skills for use in computer graphics rendering. Written by the foremost experts in appearance modeling and rendering, this book is for practitioners who want a general framework for understanding material modeling tools, and also for researchers pursuing the development of new modeling techniques. The text is not a "how to" guide for a particular software system. Instead, it provides a thorough discussion of foundations and detailed coverage of key advances. Practitioners and researchers in applications such as architecture, theater, product development, cultural heritage documentation, visual simulation and training, as well as traditional digital application areas such as feature film, television, and computer games, will benefit from this much needed resource. ABOUT THE AUTHORS Julie Dorsey and Holly Rushmeier are professors in the Computer Science Department at Yale University and co-directors of the Yale Computer Graphics Group. François Sillion is a senior researcher with INRIA (Institut National de Recherche en Informatique et Automatique), and director of its Grenoble Rhône-Alpes research center. First comprehensive treatment of the digital modeling of material appearance Provides a foundation for modeling appearance, based on the physics of how light interacts with materials, how people perceive appearance, and the implications of rendering appearance on a digital computer An invaluable, one-stop resource for practitioners and researchers in a variety of fields dealing with the digital modeling of material appearance*

BLENDER 3D BY EXAMPLE

A PROJECT-BASED GUIDE TO LEARNING THE LATEST BLENDER 3D, EEVEE RENDERING ENGINE, AND GREASE PENCIL

Packt Publishing Ltd *Get up and running with Blender 3D through a series of practical projects that will help you learn core concepts of 3D design like modeling, sculpting, materials, textures, lighting, and rigging using the latest features of Blender 2.83 Key Features • Learn the basics of 3D design and navigate your way around the Blender interface • Understand how 3D components work and how to create 3D content for your games • Familiarize yourself with 3D Modeling, Texturing, Lighting, Rendering and Sculpting with Blender Book Description Blender is a powerful 3D creation package that supports every aspect of the 3D pipeline. With this book, you'll learn about modeling, rigging, animation, rendering, and much more with the help of some interesting projects. This practical guide, based on the Blender 2.83 LTS version, starts by helping you brush up on your basic Blender skills and getting you acquainted with the software toolset. You'll use basic modeling tools to understand the simplest 3D workflow by customizing a Viking themed scene. You'll get a chance to see the 3D modeling process from start to finish by building a time machine based on provided concept art. You will design your*

first 2D character while exploring the capabilities of the new Grease Pencil tools. The book then guides you in creating a sleek modern kitchen scene using EEVEE, Blender's new state-of-the-art rendering engine. As you advance, you'll explore a variety of 3D design techniques, such as sculpting, retopologizing, unwrapping, baking, painting, rigging, and animating to bring a baby dragon to life. By the end of this book, you'll have learned how to work with Blender to create impressive computer graphics, art, design, and architecture, and you'll be able to use robust Blender tools for your design projects and video games. What you will learn • Explore core 3D modeling tools in Blender such as extrude, bevel, and loop cut • Understand Blender's Outliner hierarchy, collections, and modifiers • Find solutions to common problems in modeling 3D characters and designs • Implement lighting and probes to liven up an architectural scene using EEVEE • Produce a final rendered image complete with lighting and post-processing effects • Learn character concept art workflows and how to use the basics of Grease Pencil • Learn how to use Blender's built-in texture painting tools Who this book is for Whether you're completely new to Blender, or an animation veteran enticed by Blender's newest features, this book will have something for you. Table of Contents • Introduction to 3D and the Blender User Interface • Editing a Viking Scene with a Basic 3D Workflow • Modeling a Time Machine - Part 1 • Modeling a Time Machine - Part 2 • Modern Kitchen - Part 1: Kitbashing • Modern Kitchen - Part 2: Materials and Textures • Modern Kitchen - Part 3: Lighting and Rendering • Illustrating an Alien Hero with Grease Pencil • Animating an Exquisite Corpse in Grease Pencil • Animating a Stylish Short with Grease Pencil • Creating a Baby Dragon - Part 1: Sculpting • Creating a Baby Dragon - Part 2: Retopology • Creating a Baby Dragon - Part 3: UV Unwrapping • Creating a Baby Dragon - Part 4: Baking and Painting Textures • Creating a Baby Dragon - Part 5: Rigging and Animation • The Wide World of Blender

COLOR AND LIGHT

A GUIDE FOR THE REALIST PAINTER

<u>Andrews McMeel Publishing</u> *From New York Times best-selling author of the Dinotopia series, James Gurney, comes a carefully crafted and researched study on color and light in paintings. This art instruction book will accompany the acclaimed Imaginative Realism: How to Paint What Doesnâ€™t Exist. James Gurney, New York Times best-selling author and artist of the Dinotopia series, follows Imaginative Realism with his second art-instruction book, Color and Light: A Guide for the Realist Painter. A researched study on two of art's most fundamental themes, Color and Light bridges the gap between abstract theory and practical knowledge. Beginning with a survey of underappreciated masters who perfected the use of color and light, the book examines how light reveals form, the properties of color and pigments, and the wide variety of atmospheric effects. Gurney cuts though the confusing and contradictory dogma about color, testing it in the light of science and observation. A glossary, pigment index, and bibliography complete what will ultimately become an indispensible tool for any artist. This book is the second in a series based on his blog, gurneyjourney.com. His first in the series, Imaginative Realism, was widely acclaimed in the fantastical art world, and was ranked the #1 Bestseller on the Amazon list for art instruction. "James Gurney's new book, Color and Light, cleverly bridges the gap between artistic observation and scientific explanation. Not only does he eloquently describe all the effects of color and light an artist might encounter, but he thrills us with his striking paintings in the process." --Armand Cabrera, Artist*

THE COMPLETE GUIDE TO PHOTOREALISM FOR VISUAL EFFECTS, VISUALIZATION AND GAMES

<u>Routledge</u> *This book offers a comprehensive and detailed guide to accomplishing and perfecting a photorealistic look in digital content across visual effects, architectural and product visualization, and games. Emmy award-winning VFX supervisor Eran Dinur offers readers a deeper understanding of the complex interplay of light, surfaces, atmospherics, and optical effects, and then discusses techniques to achieve this complexity in the digital realm, covering both 3D and 2D methodologies. In addition, the book features artwork, case studies, and interviews with leading artists in the fields of VFX, visualization, and games. Exploring color, integration, light and surface behaviour, atmospherics, shading, texturing, physically-based rendering, procedural modelling, compositing, matte painting, lens/camera effects, and much more, Dinur offers a compelling, elegant guide to achieving photorealism in digital media and creating imagery that is seamless from real footage. Its broad perspective makes this detailed guide suitable for VFX, visualization and game artists and students, as well as directors, architects, designers, and anyone who strives to achieve convincing, believable visuals in digital media.*

LEARNING MAYA?5

RENDERING

<u>Sybex</u> *"The Rendering book does something every book should do--certainly every excellent book--it offers you content unavailable anywhere else." --3DNY.org Learning Maya 5: Rendering is your solution to creating stunning images in Maya. New for Maya 5! Updated from the popular Learning Maya: Rendering, this book will teach you what you need to know when using the Maya rendering engine and mental ray for Maya. You'll learn to take advantage of options new in Maya 5, such as Hardware and Vector Rendering. Get the information you need to master Caustics and Global Illumination, Final Gather and HDRI. Learning Maya 5: Rendering includes an inspiring photo gallery of images rendered in Maya and mental ray(r) for Maya so you can see the types of results you'll learn to achieve. Features: This book will allow you to explore lighting, cameras, shading networks, and other rendering issues from an introductory level and will also allow you to explore advanced concepts in a comfortable format. Each topic is explored in both theory and practice so that you'll not only understand the concepts presented, you'll be able to complete easy-to-follow step-by-step tutorials. In addition, you'll take advantage of valuable chapter-by-chapter overviews provided in QuickTime(r) format on DVD-ROM. Offered by one of the book's contributors, Cathy McGinnis, an Alias|Wavefront(TM) Certified Instructor, these helpful movies will allow you to gain additional insight as you work through the book. With this books you will: * Create materials and textures. * Set up lights and cameras. * Work with shadows and raytracing. * Learn to control your renders. * Understand rendering for special effects and compositing. * Explore Hardware Rendering and vector Rendering. * Create Caustics and Global Illumination effects. * Understand Final Gather and HDRI techniques. * Create Maya and mental ray Shaders. And much more...*

DIGITAL COMPOSITING WITH NUKE

<u>CRC Press</u> *Whether you're a novice compositor or a well-versed one moving over from After Effects or Shake, this is THE book for you to learn the ins and outs of the powerful compositing software, Nuke.*

RENDERING REAL AND IMAGINED BUILDINGS

THE ART OF COMPUTER MODELING FROM THE PALACE OF KUBLAI KHAN TO LE CORBUSIER'S VILLAS

<u>Rockport Pub</u> *Digitally recreated buildings come alive in color and elaborate detail in this book. Technology and innovation allow us to "walk" through what had been lost to history or only available in black-and-white photographs or sketches. From archeological ruins and the unbuilt designs of famous architects to buildings of the modern imagination, each of these fascinating projects affords readers the chance to see what was and what might have been in the world of architecture. Now it is possible to experience unbuilt projects by Italy's Antonio Sant'Elia, Russia's Iakov Chernikov, and France's Le Corbusier. Or to walk through destroyed buildings -- like Frank Lloyd Wright's Larkin Building and the Anasazi Indians' Chetro Ketl Great Kiva in New Mexico. It even allows us to experience what will never really exist: architecture students are stretching technology and imaginations to show us what Norse mythology's Valhalla might look like or Isaac Asimov's Planet Trantor. All of these examples provide a rich, visual "history" for the professional and student as well as for any reader interested in architecture, archaeology, or high-tech computer graphics capabilities.*

DIGITAL MAYHEM 3D MACHINE TECHNIQUES

WHERE INSPIRATION, TECHNIQUES AND DIGITAL ART MEET

<u>CRC Press</u> *From Icy Tundras to Desert savannahs, master the art of landscape and environment design for 2D and 3D digital content. Make it rain, shower your digital scene with a snow storm or develop a believable urban scene with a critical eye for modeling, lighting and composition. Move beyond the limitations of gallery style coffee table books with Digital Mayhem: 3D Landscapes-offering leading professional techniques, groundbreaking inspiration, and artistic mastery from some of the greatest digital artists. More than just a gallery book - each artist has written a breakdown overview, with supporting imagery of how they made their piece of work. Compiled by Duncan Evans, founder and inspiration behind 3DArtist Magazine, start your mentorship into the world of digital art today with some of the greatest digital artists in the world! Develop your landscape and background skills beyond the variety of free online tutorials and apply the most up to date techniques, like colour and contrast enhancements, sharpening, composition, lighting and more! Expand your digital canvas to include a variety of software techniques, tools and workflows featuring Photoshop, Painter, Maya and 3ds Max examples. A source of inspiration for digital artists everywhere: more than 50 artists and 700 stunning color images are showcased with an in-depth companion website that includes professional source files and further technique based skills development.*

DIGITAL CHARACTER ANIMATION 3

<u>New Riders</u> *Whether you're creating animation for television, advertising, games, or multimedia, [digital] Character Animation 3 can help you bring your imagination to life. In this updated classic, both newcomers to digital animation and old hands looking to hone existing skills will find essential techniques for creating lively, professional-quality animation that are applicable to any software application. Combining the fundamentals of modeling, rigging, and animation with advanced-level information on characterization, directing, and production management, author George Maestri has created an essential resource for digital animators. [digital] Character Animation 3 is packed with beautiful new artwork and Maestri's invaluable expert tips. Along with clear instruction on the theory and practice of foundation techniques such as rigging, walk-cycles, and lip-synch–the tutorials and exercises in this book let you practice what you've learned. Maestri also offers in-depth information on creating nuanced characters that feel "alive" and win audience empathy and attention. The book's final chapter guides you through the entire filmmaking process, from story development through voice casting and animation directing.*

THE HDRI HANDBOOK 2.0

HIGH DYNAMIC RANGE IMAGING FOR PHOTOGRAPHERS AND CG ARTISTS

<u>Rocky Nook, Inc.</u> *! BONUS DVD ONLY WITH THE PRINT EDITION (NOT AVAILABLE WITH eBOOKS) ! In 2007, The HDRI Handbook was the first book to present this revolutionary new field to a larger audience. These days HDRI is a fully mature technology available to everyone. Real estate and landscape photographers have adopted it as part of their regular workflow, it has become one of the hottest trends for ambitious amateurs and creative professionals alike, and the modern movie industry would be completely dysfunctional without it. Now The HDRI Handbook 2.0 redefines its own gold standard. It has been completely rewritten and is packed with practical hints and tips, background knowledge, reference tools, breathtaking artist portfolios, and inspiring interviews. The book includes dozens of new step-by-step tutorials. Beginners will get a methodically solid introduction and advanced readers will be able to refine their technique to perfection. Topics include:- Understanding the foundation of HDRI- HDR software comparisons and evaluations- Capturing HDR images: today and tomorrow- Tonemapping for creating superior prints- HDR image processing and compositing- Shooting and stitching HDR*

panoramas- Image-based lighting and CG rendering 2.0 updates include:- New cameras, sensors, and HDR beamsplitter rigs- Open Camera Controller for endless auto-bracketing- Correct RAW pre-processing and ghost removal- Dozens of practical, easy-to-follow tutorials- A structured approach to tonemapping, inspired by Ansel Adams- Set etiquette and tips for capturing HDR panos for visual effects- Seven artist spotlights showing unique perspectives on HDRI- Seven crossword puzzles: a fun way to test yourself ! BONUS DVD ONLY WITH THE PRINT EDITION (NOT AVAILABLE WITH eBOOKS) !

HOW TO RENDER

COMMUNICATING FORM AND RENDERING A WIDE RANGE OF MATERIALS

'How to Render' shows how the human brain interprets the visual world around us. Author Scott Robertson explains the subject of visually communicating the form of an object in easy to understand step-by-step lessons through the use of drawings, photography and even 3D digital imagery.