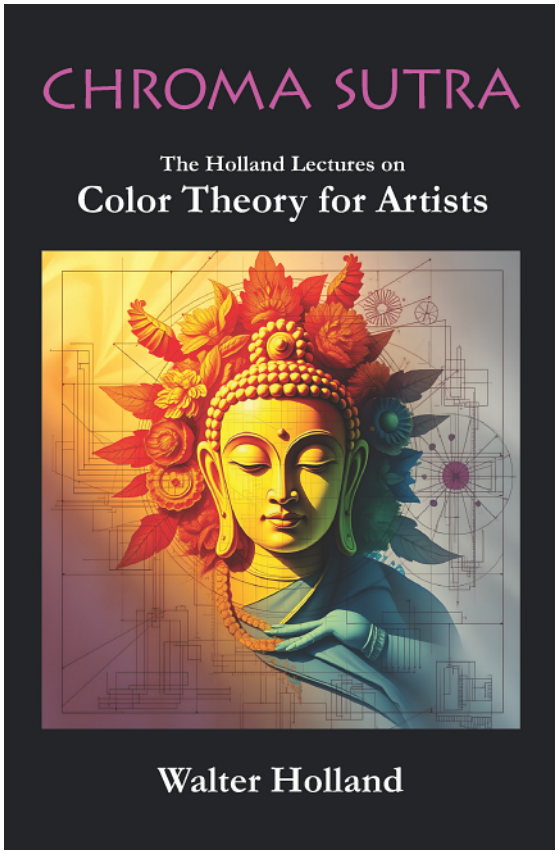



*This book clarifies errors, inaccuracies and ambiguities about color and presents a new and improved color wheel for art students, artists, instructors and color theorists. Teaches hue, saturation and value, tints, tones and shades.*

**Chroma Sutra:**
**The Holland Lectures on Color Theory for Artists**
By Walter Holland

**Order the book from the publisher Booklocker.com**
https://booklocker.com/books/14555.html?s=pdf
**or from your favorite neighborhood**
**or online bookstore.**

# CHROMA SUTRA

The Holland Lectures on

## Color Theory for Artists

Walter Holland

Print ISBN: 979-8-218-84180-5



Book Cover by Coriolis Staff

www.coriolisrecords.com

Illustrations by Walter Holland

First edition 2025

# Table of Contents

# Chapter 1
# Introduction

If you are trained as an artist, you undoubtedly studied color theory while you were in art school. Unfortunately, you may have been done a tremendous disservice, because most likely, nearly everything you learned was either misleading or entirely untrue! There are at least two reasons for this: firstly, color theory is a multi-disciplinary and extremely complex subject, which is difficult to grasp in its entirety. In fact, the physiological mechanism by which we perceive color is not yet entirely understood, even as I write this. Secondly, most of what your instructors were taught was probably patently erroneous, and they were just passing that misinformation along to you.

If you go to any art supply store today and ask to buy a color wheel, they will sell you something that is completely wrong and misleading. To complicate matters further, the classic textbook, which has been considered the bible of color theory for artists for the last 50 years (Itten, The Elements of Color, 1970), contains many misconceptions, and theoretical and practical errors. I feel truly terrible having to attack the work of a minor deity such as Johannes Itten, but I believe we now have better pigments and better science that prove a lot of his conclusions to be incorrect. However, I still feel awful about contradicting such a revered teacher...which I cover in more detail in chapter 12, titled "Apologies to Professor Itten."

Given the above situation, it becomes clear why most artists find color theory to be one of the most difficult subjects to apply and thoroughly

comprehend. Color theory as it has been taught is frequently a source of frustration for artists, particularly the areas of mixing paint and color harmony, (which frankly, can drive painters to drink). Don't despair: the parts of color theory that artists need to know aren't that complicated. You just need someone to show you the true path.

## Reconciling Art and Physics

Color theory is a very broad field, finding application in virtually all aspects of everyday life. In fact, it would be very difficult for an individual to not be stimulated by color almost every waking minute. Diverse areas such as interior design and printed media, television, fabric design, automotive paint, advertising, architecture and food presentation, are all constantly bombarding us with sensations of color. Although each of these commercial fields is very different from the other, they have one thing in common: The science of color nowadays is extremely advanced.

Whether you are a chemist or a theater lighting technician, a television engineer or an optical designer or an optometrist, you are required to study and understand the physics of light and color. Did you notice that artist was not on that list? At some point in history, artists veered off of the path of scientific knowledge of color, presumably owing to the fact that artists work with pigments. Historically, pigments have been extremely limited in their ability to perform according to the expectations of one trained in color theory, so decisions were made to teach painters a version of color theory that was not remotely accurate, but one that sort of functions (however minimally) for people working with paints and pigments.

In essence, people who are technically or scientifically trained in color theory are taught one thing, and artists are taught something completely different. In my mind, this is a bit like living in Los Angeles and telling a

child that the sky is blue, and having the child say: "but I can see that the sky is brown!" One approach is to insist that the sky is blue, until you are blue in the face. This is the manner in which artist's color theory is normally handled. But another method, and the method I find most appropriate in both situations, is to explain that in theory, and under certain conditions, the sky is blue. However, due to atmospheric pollutants and so on, the sky sometimes appears to be brown.

I feel that it is far more useful and rewarding for an artist to understand the behavior of light and color, and then to learn the limitations of colorants and pigments, and why and under what conditions they sometimes fall short of theoretical predictions. For an artist, there is nothing more rewarding than solving color problems intuitively. However, it is very comforting to know that in reserve, you have the theoretical knowledge to fall back on when intuition finds occasion to shortchange you.

## The Scope of this Text

This book will present a series of ideas that may seem very foreign, contradictory and even absurd to those trained (or shall we say mis-trained), in traditional color theory for artists. I have not discovered any unknown or profound information. All of the ideas that I am presenting can be verified either empirically by experiment, or by examining any current technical text on the subject of light and color. The ideas that I am expounding are neither new, nor revolutionary except in this way: By correcting the artist's color wheel, I was able to see many new ideas and color relationships. Harmonies and laws that were heretofore obscured by the errors in the traditional color wheel became clear. The laws of primary colors and mathematical harmonic relationships became obviously apparent. These changes to the color wheel make color theory work for artists at last.

My goal for this book is to collect facts and ideas from many diverse areas of science and industry that have heretofore been off limits to painters and artists, and to present these concepts in a concise, easy to understand and practical manner. I am not attempting to address all areas of color theory, only those areas that somehow seem to have been neglected with respect to artists. One reason for this is that subjects such as color effects, (the interaction of two or more colors placed in proximity) and color contrasts, have already been expertly covered, and there is an abundance of good information available on the subject. Another reason is that as one follows color theory to the fringes of art, one enters the domains of psychology, physiology, neurology, physics and so on, and while these may be of interest to the artist, they are not prerequisites to being a skilled colorist.

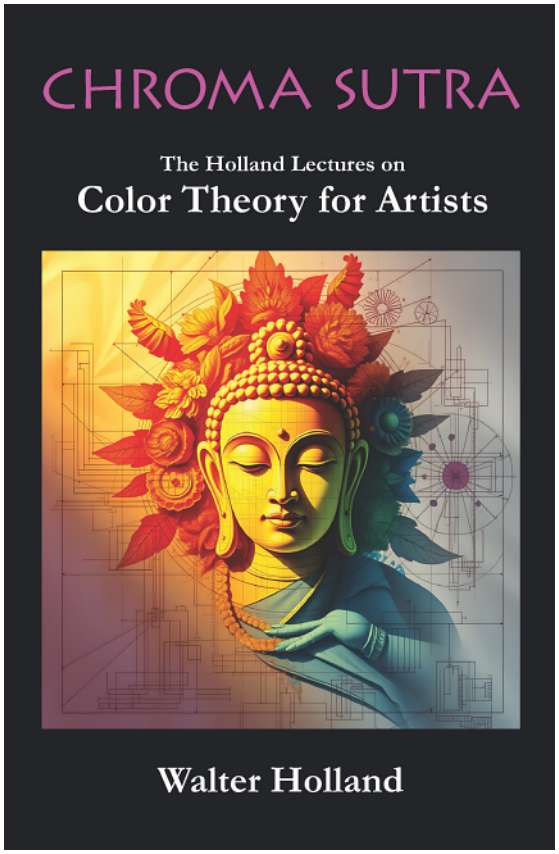
This book is the culmination of my research and the color theory lectures I have given at various colleges and universities beginning in 1985 and continuing into the new millennium. Many of the illustrations are the same drawings I might have made on the chalkboard at the time of the lectures.

I would like to thank the following people for their support and encouragement during the years of research that this project required: Dr. Richard and Clara Watson, Professor William and Angie Boaz, Professor Susan Rankaitis, Professor Roy Montibon, Professor John Yules and Ellen Holland.

It fascinates me, in hindsight, that some of the most confounding problems throughout the study of color can be answered by looking closely at the results of Newton's original experiments performed in 1665-1666. I would suggest to anyone excited by the field of color, to read Newton (Newton, 1704), which is marvelous poetry, and to "procure himself a glass prisme" and repeat these experiments. Use the prism to break the sunlight into its component colors. Subtract any one of the colors and use a

converging lens to combine the remaining colors making its complement. As you perform these historic experiments, ask yourself why yellow is such a bright color, why there is no magenta in the spectrum and why when you isolate any one color, its complement is so bright.

My hope is that this book will become a familiar and trusted friend that sits by your easel, giving reference and guidance and comforting you on your journey as an artist. So, with this in mind, let's regress to the elementary school level, and relearn the marvels of light and color. By the end of this journey, you will have earned membership to that most exclusive of clubs: artists who truly understand color.




*This book clarifies errors, inaccuracies and ambiguities about color and presents a new and improved color wheel for art students, artists, instructors and color theorists. Teaches hue, saturation and value, tints, tones and shades.*

**Chroma Sutra:**
**The Holland Lectures on Color Theory for Artists**
By Walter Holland

**Order the book from the publisher Booklocker.com**
https://booklocker.com/books/14555.html?s=pdf
**or from your favorite neighborhood**
**or online bookstore.**